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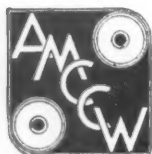
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A picture report of this railway operating battalion from Fort Benning, Ga., which is now being put through the paces on the railroad. Soldiers are shown receiving pointers and instruction from train crews, trackmen, dispatchers, machinists and others. All battalion officers and most of the enlisted men are former railroaders.

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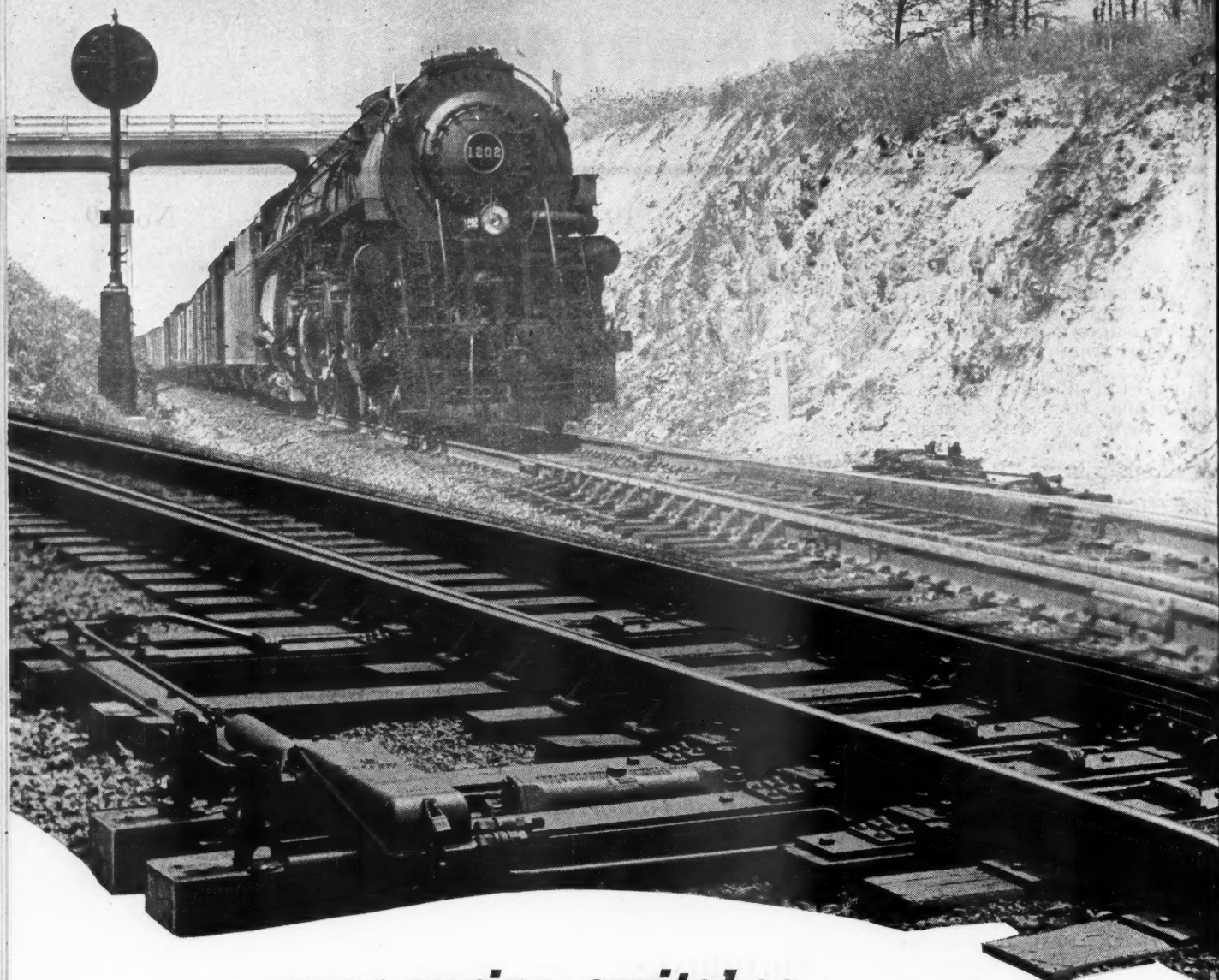
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point or if the positions of the points or of the locking mechanism are such that a facing-point move is not permissible with safety, the built-in circuit controller functions to cause the display of "stop" indications on the signals which govern train movements over the spring switch.

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UNION SWITCH & SIGNAL COMPANY

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The Week at a Glance

THE WARD SEIZURE: It may not be immediately evident why the taking over of Montgomery Ward's store by the Army (acting, not under its own aegis, but by Presidential order) is any special concern of railroad men. But a flagrant assault on immunities of the individual and his property which have restrained the greedy executive power since the days of the Stuart kings, is everybody's business. What they can do and get away with—today—to Ward's may happen to anybody tomorrow; yes and *will* happen too, if experience teaches anything at all. This shameful exhibition of raw and unrestrained force is discussed in the leading editorial herein. As a great political philosopher (Lord Acton, if memory serves) observed: All power corrupts; absolute power corrupts absolutely. Power there must be—but to be kept healthy for its own good as well as that of its subjects, it must be hedged about with restraints. Not even a superman can be safely allowed to sit as judge and jury on the merits of his own impulses.

KIBITZERS ON SIGNALING: The railroads are getting considerable free advice these days on how to improve their signaling, from press and radio commentators who speak with the more assurance the less they know. One writer (who, as an exception to the general rule of expounders of this theme, is a real authority on communication) predicts in a current magazine article that trains in future will travel "on the beam," as planes do. An editorial herein draws attention to the fundamental function of the track circuit in railway signaling. A radio "beam" would play hob on a multiple-tracked railroad, and would give no protection against track failure or open switches.

RADIO ON RAILROADS: The whole subject of the applicability of radio as a railroad safety device will get a chance for a full airing at an investigation which the Federal Communications Commission has announced. The F. C. C. also reveals that it has requests for authority from railroads to install 22 experimental radio stations, and that permission for nine of these has already been granted. The names of the companies involved are given in a report in the news pages of this issue.

STRAW FOR THE CAMEL: Senator Reed is no socialist and neither, of course, are most of the members of the state commissions—but turn to our news pages and take a look at the obstacles which these gentlemen are seeking to put in the way of the abandonment of profitless branch lines (i. e., one more road-block against profitable operation of railroads under private ownership). One of these witnesses even contended that—to get abandonment permission—a carrier should be required to prove, not only a benefit to its own entire system, but a benefit to the railways as a whole. Another witness insisted that local authorities, not the I. C. C., should have jurisdiction as to the "convenience and necessity" of branch lines (i. e., they wish to sit in judgment in their own cause).

In view of what happened to railroad earnings and credit in the 'Thirties—without the high wages and "job protection" clauses now in effect—just how many more legal restrictions to profitable operation do these gentlemen believe the carriers can sustain, and continue as private business? How many unprofitable operations are the railroads' competitors required to continue? What kind of prospects are there for an industry that is denied access to new business (e. g., air transport) at the same time that it is forbidden to withdraw from red-ink ventures?

FIREPROOF WOOD: Timber treatment has worked a gradual but substantial miracle in the preservation of wood from decay—and now similar progress has been initiated to reduce the danger from timber's other natural enemy, fire. An editorial discusses this highly significant development, and further information is given in our report in this issue of the wood preservers' session last week in Chicago. This convenient construction material cannot fail to gain in applicability as its two principal enemies are steadily subjugated.

THE A. A. R. RESEARCH JOB: Further information on the progress being made by the earnest and able A. A. R. Committee for the Study of Transportation was disclosed late last week, and is reported briefly on page 848. Attention was drawn particularly to the comprehensive character of the "economic study" (wherein a separate inquiry is being made into the prospects and requirements of each of the 42 major branches of industry which produce the bulk of the nation's traffic); and to the status of the program for technical research. It was pointed out that nomination of a director of technical research, called for in the committee's program, has not yet been made. The investigation planned in this field will be in addition to, rather than supplant, inquiry already in progress by the A. A. R.'s technical divisions.

DISPUTE ON VACATIONS: The controversy over paid vacations for the B. of L. F. & E., the O. R. C., and the S. U. of N. A. is being handled under Railway Labor Act procedure, while the B. of L. E. and the B. of R. T. have gone to President Roosevelt with their troubles, who has laid them in the lap of Mme. Perkins. The Mediation Board has announced that the parties proceeding under the Railway Labor Act have agreed to arbitration; details in the news pages herein.

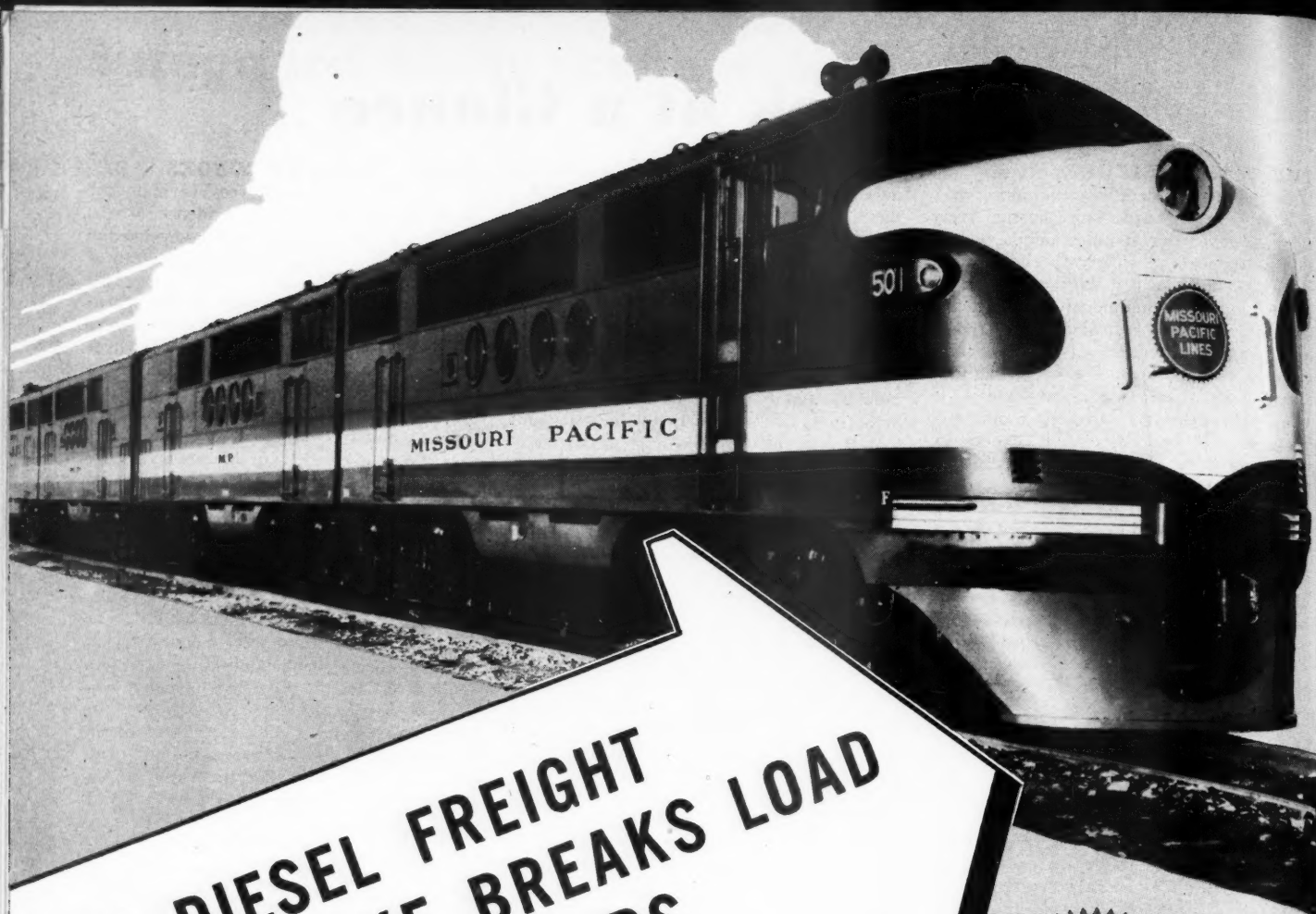
TO STUDY FREIGHT CLAIMS: The causes and prevention of freight claims—and not only that, but improved procedures for dealing with claims when they arise—are going to be painstakingly gone into by a special committee appointed last week by the Freight Claim Division at its Cincinnati session, reported herein. It is proposed, also, that a research laboratory be established in the Freight Container Bureau, to make tests of containers and loading methods, which can then be specified in tariffs.

WHAT PRESENT WAGES ARE: I. C. C. figures on employees' earnings for January provide striking evidence of the extent to which standards of compensation have risen in the railway industry. Figures and a brief analysis are given on the editorial pages herein. Average monthly earnings per employee in January of this year were \$222—an increase of 56 per cent over pre-depression prosperity in 1929, and of 41 per cent over pre-war 1940. Wages during the past four years have risen just about twice as much as the cost of living. At the same time, however, railroad employees are working a lot of overtime. Our editorial asks whether employees of any other large industry can show as high a level of overtime as the 27 hours averaged by railway employees last January.

LAND GRANT REPEALER: The House Interstate Commerce Committee has adopted the recommendation of its subcommittee, and is favoring complete repeal of land-grant rate reductions. The committee takes the view that the government should apply the "renegotiation" principle to itself—now that the value of the land grants has been many times repaid. It fears, also, the effect on post-war railway finances if the government successfully presses some of its overcharge claims—on which the railroads have already paid income taxes. A repeal, it is believed, would benefit motor carriers and railroad patrons generally.

TRENDS IN MOTIVE POWER: An outstanding need in Diesels is to reduce their weight in order to bring down first cost and maintenance expenses. Another hope is that improved design may permit the use of less-costly fuels, with simplified engines which will be easier to maintain. Such were among the many suggestive observations on the prospects regarding post-war motive power made by Alco's Vice-President J. E. Davenport in a paper reported elsewhere in these pages. The presumptive advantages of complete Dieselization, he said, are offset by the enigma of what the future fuel supply (and its cost) will likely be. The highly desirable development in the steam locomotive, he went on to say, will be an increase in its availability (reduced servicing and fueling time); with a considerable list of other hopeful possibilities. Opportunities are also predicted and set forth for further development of electric power and the gas turbine.

LOW RATES TO STAY: The railroads have consented to a further suspension of the Ex Parte 148 freight rate increases until the end of the current year—having made this concession despite the decline in their net earnings which has resulted from higher taxes and wages. These rate increases, it will be recalled, were authorized by the I. C. C. early in 1942 to compensate for the Pearl Harbor wage increase, and were suspended temporarily a year ago. The hope that the land-grant rates may be repealed appears to have entered into the carriers' decision not to press for the restoration of standard rates at this time.



**GM DIESEL FREIGHT
LOCOMOTIVE BREAKS LOAD
AND SPEED RECORDS**
On Inaugural Run



THE first of the new Missouri Pacific Diesel Freight Locomotives made history when it broke all existing load and speed records on the railroad by hauling 115 cars, totaling 4339 tons, on its 515 mile maiden run from Dupu, Illinois, to Texarkana, Texas, in 20 hours and 8 minutes. This running time was almost 14 hours ahead of the schedule for "symbol" oil trains, which are the hottest and fastest freight trains handled by this or any other railroad. But this inaugural run was only the beginning. On another test run from Texarkana to Dupu, the General Motors 5400 Hp. Diesel Freight Locomotive handled 7064 actual tons, pulling 124 loads and 3 empties in record time.

The Missouri Pacific is another railroad using triple GM Diesel motive power service. Fifteen GM switchers complement the work of the freight locomotives in speeding war traffic, and seven passenger locomotives handle the road's famous fleet of Eagles in fast service with high availability, economy and on-time records.

★ LET'S ALL BACK THE ATTACK — BUY MORE WAR BONDS ★

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION

LA GRANGE, ILLINOIS, U.S.A.

RAILWAY AGE

Have We a Military Dictatorship?

Most recent discussion in this country has been about conduct of the war and our post-war relations with other nations; but the recent sensational seizure of Montgomery Ward & Company's property in Chicago and eviction of its chairman *by the army* have emphasized, as many previous developments have, but less forcibly, that not our foreign policies, but our domestic policies, present the most vital issues with which the American people are confronted. A railway magazine, in commenting on such an incident, may seem to be going out of its field. But the issue of *freedom*, when so plainly presented, is one regarding which it is the duty of every publication and citizen publicly to take a stand.

The company had declined for five months to bargain regarding a new contract with a certain C. I. O. union in its Chicago store, because the union refused to hold an election to settle whether it represented a majority of the employees. The union caused a strike which was only partially effective. The government ordered the strikers to return to work, which they did. It also ordered the company to carry out the old contract until a union election should be held; but the company refused to carry out, pending an election and collective bargaining, the check-off and union maintenance provisions of the contract. President Roosevelt then ordered government seizure of the Chicago store, which the company resisted, contending that the store was not legally subject to government seizure because not engaged in war work but in retail business. Whereupon the army was used to seize the property, and, by actual physical force, evicted Sewell Avery, chairman of the company.

On the evening of the same day the government asked a federal court for an injunction restraining officers of Ward's from interfering with government operation. If the government was going to appeal to the courts, why did it not do so *before* instead of *after* it had caused the army to seize the company's property and throw out its chairman? To every person having even an elementary knowledge of the Constitution and laws of the United States the answer is plain. The government was determined to seize the property, legally or illegally; but its appeal to the courts *after* it had used the army was a confession that its previous action probably had been an illegal use of military force; and it had recourse to the courts to make legal the retention of a control which had been secured by probably illegal, and therefore dictatorial and tyrannical, means.

Probably government officials have been greatly surprised, first, by the resistance offered by officers of the company to seizure of its property, and, second, by the nationwide sensation and outburst of adverse public sentiment it has caused. They have been surprised by the resistance offered, because officials of the present administration, in going farther and farther throughout the last eleven years in disregarding constitutional and legal provisions formerly supposed to safeguard rights of property, have grown accustomed to business leaders assuming an attitude of timid non-resistance. The incident has caused so much excitement and public hostility because of (1) the nature of the property seized and (2) the use of military force in seizing it.

Whatever the courts may decide regarding the legality or illegality of the government's action, a large part of the American people believe and will continue to believe that in purpose and in the means

Efficiency
FOR VICTORY

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used it was an attack upon freedom in this country similar to those by which Fascist and Nazi governments have destroyed freedom in other countries. This is and will be true largely because the recent incident was but the culmination of many which have been criticized as indicating that the present administration strives constantly for increases of its power, and, therefore, for reductions in the freedom of the citizen.

Post-War Supervision

Lessons of efficiency learned from the war experience will need to be retained to achieve a post-war national income large enough to sustain the huge war debt and a high level of employment and standard of living. For one thing, management realizes the need of providing a better type of leadership throughout the supervisory staff. To this end a variety of training methods have been introduced, or former educational practices have been extended or speeded up. Training Within Industry or T. W. I., under the direction of Channing R. Dooley, industrial relations manager of the Socony-Vacuum Oil Company, has given an excellent account of itself and has been applied with success on a number of railroads. It is little wonder that it has continued to function successfully under a series of shake-ups of Washington war production agencies, since Mr. Dooley has had the assistance of leaders in industry who are experts in this field.

The railroads, faced with strong competition after the war, must plan to provide the best possible service at the lowest possible costs, and this can only be done when every supervisor, from top to bottom, understands his job thoroughly and knows how best to lead the men under his direction. No matter how good a supervisor may be, he needs to continually study to become more efficient and effective.

Another fact should not be overlooked. Accidents are costly and wasteful—war conditions have dramatized this in a most decided fashion. More and more, also, is it becoming recognized that bad accident records are chargeable to poor leadership. The foreman or supervisor who understands how to coach and train the workers under him can secure their co-operation and do wonders in accident prevention.

Better leadership is just as essential to improved and safe operations as new and improved materials, equipment, and facilities.

Employees' Earnings

Interstate Commerce Commission monthly statistics on wages of railway employees in January of this year reflect, for the first time, the full effect of the increases in wages exacted by the labor organizations last December. The great improvement in the economic status of railway employees—in comparison with pre-war and with the all-time peak of peace-time prosperity in 1929—is revealed by comparing their January, 1944, earnings with those of the same months of 1929 and 1940. This comparison is made in the table at the bottom of the page.

Average monthly earnings of all employees paid on an hourly basis, it will be noted, were \$222 in January, 1944, compared with \$158 in January, 1940, and \$142 in 1929—a percentage increase of 56 per cent above 1929 and of 41 per cent over 1940. The cost of living in January of this year, according to the index of the National Industrial Conference Board, was less than 3 per cent greater than in 1929 and only 22 per cent greater than in 1940. In other words, increases in "real" wages of railway employees are almost as great as the 56 per cent "nominal" increase since 1929; and increases in living costs have been only about half as great as the increase in average monthly wages since 1940.

It will be noted also, from the table, that increases have been especially marked in the categories of maintenance of way and maintenance of equipment employees—where the bulk of common labor on the railways is found.

An industry which can (1) pay such largely increased wages to its employees, (2) pay hugely increased taxes to the government, (3) charge the lowest rates to its customers since before World War I, and (4) nevertheless earn thus far in 1944 as much net operating income as in 1929, can fairly derive some satisfaction from its economic virility.

While railway employees are being extremely well paid for their performance, credit must nevertheless go to them for their willingness to work overtime, which, except for the war, they would doubtless be reluctant to do, in view of the magnitude of their earnings for ordinary hours. How many large industries are there whose employees are putting in almost 27 hours of overtime per month as was done by railway employees on the average in January, 1944?

Earnings of Hourly-Paid Employees 1944, 1940, 1929

Group	Number of Employees January			Average Hours Overtime per Employee January			Average Wage per Employee January			Percentage Increase in Average Wage per Employee January	
	1944	1940	1929	1944	1940	1929	1944	1940	1929	1944 over 1929	1944 over 1940
Professional, Clerical, General..	184,141	127,695	214,407	16.1	2.8	4.6	\$195	\$150	\$134	+46	+30
Maintenance of Way and Structures	255,745	169,481	328,677	28.8	10.4	9.6	164	108	95	+73	+52
Maintenance of Equipment and Stores	368,283	271,576	439,324	35.9	5.2	7.1	223	145	133	+68	+54
Transp. (Not Train, Engine or Yard)	146,580	107,990	165,905	20.9	8.0	9.8	191	145	132	+45	+32
Transp. (Ydmstrs., Sw. Tenders and Hostlers)	11,305	8,746	15,168	25.2	3.8	4.7	276	187	169	+63	+48
Transp. (Train and Engine) ..	298,067	220,882	309,182	23.3	13.3	19.1	300	223	213	+41	+35
All Employees	1,264,121	906,370	1,451,267	26.8	8.1	10.0	222	158	142	+56	+41

NOTE: Monthly averages are computed by dividing mid-month employment total into total payroll, the resulting figure being the average for full-time employment. Employees of switching and terminal companies not included.

Signaling Cannot Be Controlled by Radio

During the last few months a number of commentators, columnists and others have made broad statements regarding the possibility of radio being employed as a substitute for railroad signaling or for the control of such signaling. For example, a comment in *Colliers* for May 6, states that "Crack trains of the future will probably travel 'on the beam,' much as planes do now, guided by radio all the way. When they do, accident rates due to overloading of standard signal systems and human endurance will drop sharply."

In the postwar period it is quite possible that various forms of radio and high-frequency inductive systems will be installed for telephone communication between the engine and caboose of freight trains, between trains, and between trains and wayside offices. Communication, however, is one thing; signal protection controlled automatically by trains is something else. Statements like that quoted above show ignorance of the character of "standard signal system."

An important fact that is not appreciated by these commentators is that the basic control of signaling is the track circuit, by means of which a train controls its own protection automatically by shunting the rails which form a part of the circuit, thereby holding the signal for that block at its most restrictive aspect to stop any other train from entering the block. A second element of the "standard signal systems" is the further protection afforded whereby, if a rail is broken, the track circuit ceases to operate, and the signal is controlled automatically to stop trains at the entrance of the block. Furthermore, if a switch is opened more than a fixed and very small amount, as for example $\frac{1}{4}$ in., the signals are controlled to stop all trains. These forms of protection are provided by electrical circuits in the rails which are not inherent in any proposed means of using high-frequency energy broadcasted or beamed in the earth or in the ether above.

Another important attribute of track circuits, as well as of other safety circuits in railroad signaling, is that all such controls are designed on the closed-circuit principle, whereby the signal for the block is automatically set to stop an approaching train if a wire is broken or a connection opened. Thus a check is available at all times of the in-service condition of all control circuits, and a failure results in safety by stopping trains, rather than allowing them to proceed. It is essential that a constant check of this character be incorporated in any system for the control of railroad signals.

Referring again to the comment quoted above, we know of no way in which a track-circuit-controlled signal system can fail due to "overloading." Neither is human endurance a factor in the control of such signaling.

It is unfortunate that commentators permit their enthusiasm to draw them into discussions of subjects as technical as railway signaling without first acquiring adequate knowledge regarding them, for inaccurate comments cannot do other than lead to confusion and unwarranted criticism of the railways by an otherwise uninformed public.

Fire Retardation of Timber

Wood has long been a basic construction material. For many railway purposes it possesses advantages over any other material that has yet been made available, and will long be used in quantity by the roads.

The most universal enemy of wood is decay. In applications exposed to the weather, and especially to alternate wet and dry conditions, the life of many species of timber is limited. To overcome this deficiency, the treatment of the timber with chemicals, principally creosote, zinc chloride, and more recently Wolman and other salts, has been widely adopted, especially on the railways, which regularly use from two-thirds to three-quarters of all the timber so protected.

Starting with crossties, nearly all of which are now treated, timber preservation (or treatment) has extended to structural timbers for trestles and other bridge applications, and more recently to certain details of building and of freight car construction. By such means, the life of the timber is doubled and frequently trebled or even quadrupled, reducing the drain on our diminishing forest resources to this extent and thereby extending the period during which timber will be available for these applications.

Second only to decay in limiting the use of timber is its inflammability or lack of resistance to the hazards of fire. For a long time this weakness was considered insuperable, and is an especially great hazard on the railways.

Within the last decade, and particularly since the outbreak of the present war, wood preservation has entered a new field—that of so treating timber by the injection into it of chemicals as to impart to it a very definite degree of fire retardation, which gives it a high degree of immunity against the types of fire hazards encountered most frequently on the railways. It is significant of the interest in this trend that the annual meeting of the American Wood-Preservers' Association, whose activities are reported elsewhere in this issue, gave a large amount of attention to the developments in this direction. While these developments are as yet partially proprietary with respect to the chemicals employed, it is to be expected that their selection will broaden rapidly as the basic principles of their use become more fully developed.

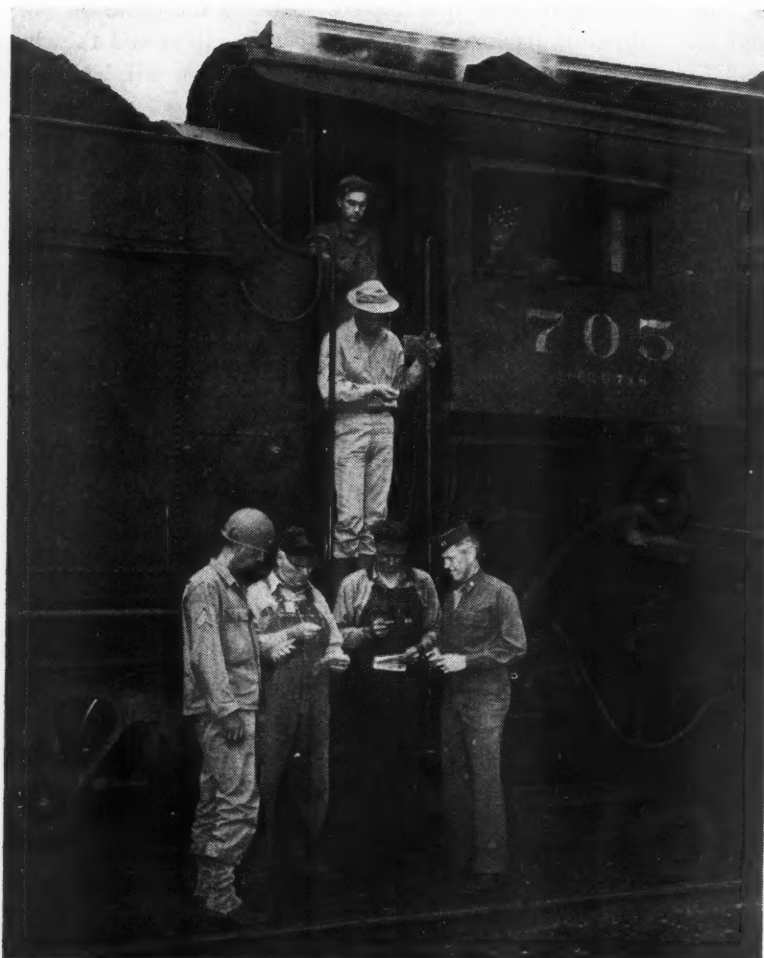
Wood preservation, in the protection of timber against decay, has saved the railways hundreds of millions of dollars. Wood preservation, in the protection of timber against fire, offers the railways further possibilities that appear almost as great.

The 722nd Ry. Operating Battalion's Officers Are Shown with a Flange-Wheeled Inspection Car. *Rear Row*, l. to r.: W. E. Dillard, Superintendent Columbus division, C. of Ga.; Major Curtis A. McRee, Commanding Officer of the Battalion (Former Superintendent S.A.L., at Raleigh, N. C.); Captain J. R. Thorne, Executive Officer (Former Assistant Superintendent S. A. L., Tampa Div.); Captain E. H. Hensen (Former Claim Agent, S. A. L.); G. W. Burks, Master Mechanic, C. of Ga., Columbus Div. *Front Row*, left to right: Captain L. B. Alexander (S. A. L.); Captain W. C. McCormick (S. A. L.); Captain H. E. Ziegler (Former Trainmaster, D. & R. G. W.)

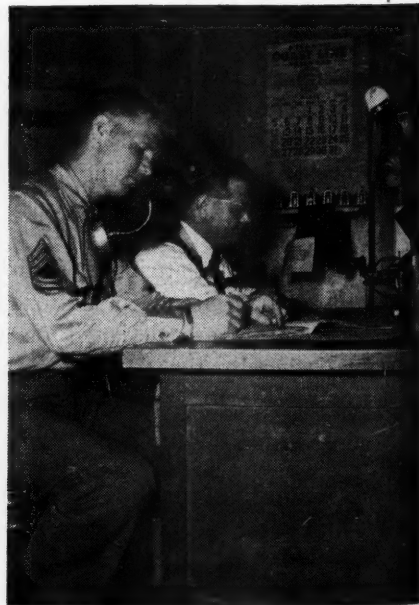


U. S. Army Signal Corps Photos

722nd Trains on the Central of Ga.



BELOW: Tech. Sgt. W. E. Deeley, Jr. (Former N. Y. Central Telegrapher at Cleveland, O.) Gets Some Pointers on Dispatching from C. of Ga. Dispatcher O. D. Page



LEFT: The G. I. and Regular Crews of a Central of Ga. Local Freight Train

Shown are, l. to r., Sgt. O. J. Westlake (Atchison, Kan.); Conductor D. B. White; Engineer P. P. Green; Capt. H. A. Ziegler. In the gangway, T/4 J. B. Jones (Gloucester, N. J.) and Pvt. C. Noffz.

BELOW: Machinist T. H. Smith Instructs Pvt. C. Billet (Cincinnati, O.) While 1st Sgt. R. J. Scheering Looks On



ABOVE: A Regular Switching Crew with Its Soldier Students

Left to right: Pvt. T. E. Addis (Former B. & O. Brakeman, Oak Hill, O.); E. E. Kimberly and G. R. White, Switchmen; Pfc. H. J. Borgerding (Former N. Y. Central Brakeman, Cincinnati, O.); Cpl. W. R. Almstead (Lynchburg, Va.). On Footboard, Foreman H. P. Hall. Looking Out the Diesel's Windows, l. to r.: Pvt. E. N. Grebenick (E. St. Louis, Ill.), E. H. Grass (St. Genevieve, Mo.).



ABOVE: Capt. W. C. McCormick and C. of Ga. Div. Engineer W. E. Chapman Give a G.I. Track Crew Some Practical Pointers



ABOVE: C. of Ga.'s Murray Greer Shows Pvt. P. Boos (Brooklyn, N. Y.) How to Make Out a Consist

LEFT: Learning to Weld a Damaged Car, C. of Ga.'s George Riddle Supervises While Pvt. E. Bernhart Does the Welding. Pvts. W. Fielding (Walpole, Mass.), H. Jensen (Kenosha, Wis.), and S. Siniaucie (Chicago) Look on.

Keeping Plant Intact in Wartime*

THE philosophy of the Office of Defense Transportation is that of close co-operation and team work, rather than the imposition from above of many executive orders requiring additional bureaus and resultant red tape. Co-operation among railroads is nothing new—it has been carried on for years in the interchange of equipment and by through rates and through service. Co-operative action has, therefore, proved workable without integrated ownership; and it has been on this basis that the Office of Defense Transportation has, in co-operation with the Association of American Railroads, shippers, and other interested organizations, assisted the carriers in raising their performance to the highest level.

Railway requirements of carbon steel for 1944's second quarter were 1,644,168 net tons; requirements for all transportation industries, for which the ODT is the claimant agency, totalled 1,917,325 net tons, with appropriate tonnages of the other controlled materials—alloy steel, copper, and aluminum. The tonnage of carbon steel allotted by the WPB to the ODT for the second quarter, 1944 was 1,812,000 net tons. The amount allotted to us for the second quarter, except for one special item, about equalled our request, indicating the effective ODT screening before the presentation of its estimated requirements to the WPB. Of the total amount authorized to the ODT, over 95 per cent has been allotted to its claimants. Allocations made by the WPB to the ODT now more nearly meet the requirements of the railroads, as submitted to us through the Association of American Railroads. The essential maintenance requirements have been fairly well met during the war period with the exception of new replacement rail.

Wearing Out Faster Than Replacements

It is apparent, however, that the transportation plant is wearing out faster than it is being rebuilt and replaced. Because of the shortages of steel, there was a deficiency in the furnishing of new replacement rail in 1942 and 1943; but it now appears that, unless the shortage of manpower at the mills should interfere, we can expect about 2,200,000 net tons of new replacement rail in 1944, which, on a basis of estimated gross ton-miles of freight traffic, will give a factor of about seventy two-one hundredths of a ton per million gross ton-miles, substantially better than in 1942 or 1943. The average annual tonnage of new replacement rail delivered to the domestic railroads for the five-year period ended December 31, 1941, was 941,000 tons. That low figure, however, reflects two factors—(1) comparatively light traffic, and (2) the inability of many carriers to finance adequate rail programs. We believe the 1944 production will absorb the full manpower available to the railroads for laying of rail. The essentiality of new replacement rail is one of the most important phases of maintenance in the railroad industry.

Under WPB Limitation Order L-88, the railroads have furnished for military use, about 2,000,000 net tons of usable relay rail, and sufficient fastenings to lay about 12,000 miles of track. The railroads, as is well recog-

Despite the easier material situation and increased allocations, the railway plant is wearing out faster than it is being replaced

By A. L. Sorensen

Associate Director, Office of Defense Transportation

nized, have made most thorough studies to release every ton of scrap possible so as to make it available for the war effort, and furnished a total of about 6,000,000 tons in 1942 and 1943. For every five tons of new steel, the railroads ordinarily return to the mills four tons of steel scrap.

The stringency of new materials has greatly stressed the necessity for reclaiming and repairing used materials, regardless of economy. The reclamation and repairing of materials is nothing new for the railroads—they have been doing it for years. The AAR is keeping current its publications on the practices obtaining on all railroads, so that each railroad may take the fullest advantage of the practices of other carriers. Such methods have made available increased amounts of reusable materials during the war period, and correspondingly have reduced purchases.

Deliveries of new locomotives have not been satisfactory. In 1941, 639 new locomotives of all types were acquired by domestic railroads; in 1942, 705; and in 1943, 830; with more than 1,050 scheduled for this year, all of which are urgently needed. The average number of new locomotives of all types installed per year during the five years ended December 31, 1941, was somewhat over 400. Locomotive retirements during the war period have been substantially reduced, because of the necessity of maintaining every possible locomotive in service, regardless of economy of operation. Similar practices have applied to freight cars. Cars and locomotives that are being retired are of older vintage and smaller capacity or tractive effort; therefore, the capacity per car, and the tractive effort per locomotive, have increased, as well as the miles and load per locomotive and freight car. Under ODT requests, many locomotives have been transferred from one property to another to assist in meeting motive power requirements.

During the fourth quarter of 1943, improved preference ratings were procured, with AA-1 assigned for locomotives, automotive replacement parts, and trucks and trailers, which previously had been rated AA-2X. This places the ratings on these finished products on the same level as military programs, and will facilitate the production of these important transportation units. These preference ratings are not applicable to controlled materials, but to the so-called "B" components, such as engines, motors, generators, axles, superheater units, etc., which are essential to the complete transportation units. It is hoped that, as a result of this improved rating and other changes in procedure, all our 1944 production programs will be met, assuming that the manpower shortage does not become too serious.

The total purchases of materials and supplies by the

* Abstracted from an address presented before The New York Railroad Club at New York on April 20.

railroads for the year 1943 aggregated \$1,394,000,000, which compares with \$1,260,000,000 in 1942, and an annual average of \$847,000,000 for the five years ended December 31, 1941. To make equitable comparisons, it is necessary also to compare prices, which, according to a recent study, show an average increase of about eight per cent in 1943 over average prices paid by the railroads in 1942.

Car Supply

In 1942, some 60,000 new freight cars were built for domestic railroads, and upwards of 30,000 in 1943, as compared with an average annual production of 48,000 during the five-year period ending December 31, 1941. At the present time, we hope for a production of about 50,000 urgently-needed new freight cars in 1944.

No new passenger cars, except the 1,200 troop sleepers and 400 kitchen cars built for military use, were authorized or built during the year 1943; and only a very limited number in 1942, which were carried over from 1941. It is hoped, however, the production of passenger cars may be resumed in the not too distant future.

The restrictions that previously applied, during the war period, to the use of alloy steel for building locomotives have been withdrawn, as well as the restriction on the use of wood in place of steel in the building of freight cars.

In addition to the moderate number of new freight cars and locomotives that we have been able to procure, the railroads have been increasing the capacity of their plant by extending yard and passing tracks, installing signals and centralized traffic control systems, and other similar facilities. Methods have been organized so that such requests are now being given prompt consideration by the ODT and the WPB. The amount of such requests approved for the year 1943 aggregated approximately \$135,000,000.

In the Division of Railway Transport, there has been established a separate section known as the Tax Amortization section, which advises the WPB of its recommendations on amortization of new facilities and equipment premised on "war necessity."

Now that the material situation has eased somewhat, the most serious question confronting us is manpower. The ODT is taking steps to assist in the manpower situation by sponsoring a national recruiting program which, it is hoped, will give the best results obtainable under existing conditions. The railroads must have sufficient workers to provide the mass transportation service to meet war requirements; and everything is being done through co-operative action to assist in this important matter, such as the railroad manpower recruiting campaign which has the full support of the ODT, the War Manpower Commission, The Railroad Retirement Board, railroad labor organizations, the Association of American Railroads, and individual railroad companies. A considerable part of this program is being directed toward an effort to reduce turnover for other than military causes. The railroads have provided the armed forces with some 240,000 men, and must furnish many more in the next few months. The railroads today have about 106,000 women employees, as compared to about 40,000 in the latter part of 1942, and it appears possible that the total number of women employees can be increased further. It has been found that, under war time necessity, women are employed in a wide variety of what were once assumed to be exclusively men's jobs. The present range is from track laborers to blacksmiths.

About 35,000 Mexican laborers have been imported

to date, about 21,000 of whom were working primarily on track during the latter part of March, 1944. It is expected that the total shortly will be increased to 40,000, and maintained at about that figure. Many of the railroads are operating training programs for the purpose of recruiting persons and training them to become railroad workers and supervising officers. This also includes courses for employees now within railroad service. In this connection, many railroads, for years, have had what have been termed "new idea clubs," operating under various plans, all of which, however, tend to improve existing practices and give the employees that birthright gift of "thinking" for themselves. These clubs also give employees the advantage of a personal touch with, and interest in the continued success of the transportation industry. Ideas and effective suggestions are being received from all ranks, and the several systems generally have worked very effectively.

In conjunction with the AAR and the WPB, all reports now required by the various divisions of the WPB are being reviewed by the railroads. As a result, it is hoped that many reports that at one time were essential, may now be discontinued and that the manpower so released may be used for more productive purposes. Such studies should be carried on by all railroads constantly, and suggestions should be made for the elimination of all unnecessary reports and all limitation and conservation orders that now appear to be unnecessary and which interfere with efficient transportation. As a result of bringing railroad inventories in line with present requirements, and a somewhat easier material situation, the detailed inventory form, previously submitted quarterly to the Transportation Equipment division of the WPB, has been modified so that it now includes very few items.

Looking ahead, crossties and lumber will probably continue as two of the most critical material items. Preliminary estimates made by the Lumber and Lumber Products division of the WPB indicate that the stated requirements of the claimant agencies exceed even the most optimistic estimate of production. Manpower shortage, together with the matters of fair prices, rubber shortage, etc., are having a very detrimental effect on the production of these important materials. Railroads in 1944 will require approximately 3,700,000,000 board feet of lumber, of which about 2,500,000,000 represent crossties and switch-tie requirements.

Another item that will be scarce for part of this year is Freon-12, a gas used for air-conditioning. However, a WPB order provides that sufficient Freon will be furnished for sealed cars; and on individual appeals, probably sufficient to meet requirements of unsealed cars. This condition will apply, however, only on the understanding that every railroad maintains its requirements to an absolute minimum and sees that there is no waste because of mechanical defects in the cars, or through other causes.

Supply of Controlled Items

The production of the controlled materials, such as carbon steel, alloy steel, copper, and aluminum for 1944, is expected, except for temporary exceptions, to meet requirements. However, the situation in this respect is constantly changing because of unforeseen developments and the uncertainty of the manpower situation in the mining industry, foundries, and other manufacturing plants.

Occasionally we hear remarks from circles that should be better informed, that the railroads were unprepared

when the war started in 1939. At that time, the railroads had on hand over 355,000 surplus freight cars and cars awaiting repairs; and over 11,000 serviceable locomotives in storage and awaiting repairs. With such a picture before them, the railroads certainly had reason to believe that they would be able to meet all foreseeable requirements. Since 1939, more than 250,000 new freight cars and 3,400 new locomotives have been ordered by the railroads.

If it had not been for the tremendously increased use of existing equipment, the railroads would not have been able to meet the war time transportation requirements placed upon them, particularly when we remember that, today, they are operating with no greater ownership of locomotives than they had in 1939 and about 20,000 less than they had during the last world war; with about 579,00 fewer freight cars; and with 500,000 fewer employees.

Such facts highlight the tremendous effort that is being put forth by every railroad employee, their officers, the suppliers, the AAR, the shippers, and the ODT; all working together and appreciating each other's problems have made these results possible. The results have been commended many times by military and other

government officers. This brings to mind the statement that President Abraham Lincoln made, many years ago, to the effect that "no other improvement that reason will justify us in hoping for, can equal the railroad in utility."

Looking forward to the victory of tomorrow, and to the results from the post-war studies being conducted at the present time by the Interstate Commerce Commission, the Association of American Railroads, the manufacturers, and individual railroads, many new innovations will be forthcoming in materials and equipment.

The railroads have met the challenge of this war period, and will likewise meet the post-war challenge. We all have, as a result of the war effort, found new ways of performing a tremendous task. The railroad supply manufacturers have done and are doing a wonderful job. Right now, the railroad industry is not permitting anything to interfere with the flow of essential materials and equipment. The post-war studies are being so conducted that they do not interfere in any way with the efficiency of current operations, but will permit prompt conversion to the reestablishment of peace-time operations.

Railroad Studies Are Well Under Way

WASHINGTON, D. C.

THAT the Railroad Committee for the Study of Transportation is well on the way with its inquiry into all forms of transport and all phases of railroad-ing was indicated in a statement of the committee's work and future plans made available by the Association of American Railroads last week. As the statement pointed out, the inquiry is under the direction of a general committee headed by R. V. Fletcher, vice-president of the A. A. R., the general committee and its 15 subcommittees being comprised of more than 100 members drawn from all departments and branches of the railroad industry.

The study was inaugurated two years ago and the ultimate plan is to publish during 1945 a comprehensive final report embodying the various interim reports issued from time to time as the work of the subcommittees progresses. To date, such reports have been issued by subcommittees dealing with air transport, with personnel problems on railroads, with public relations work of the industry, with federal taxation, and certain phases of railroad accounting. The progress of the study up to the close of last year was reviewed in the *Railway Age* of January 1, page 6.

The A. A. R. statement singled out for special mention the program of the Subcommittee on Economic Study. That group is making "a careful and systematic survey of past and present economic trends in the United States as a guide to probable production and transportation requirements of the future. In addition to this general survey, special studies are being made of 42 major industries which produce the bulk of the freight moving in the United States. The effort is to outline the development and the present situation in each of these traffic producing industries and to project its future trends and prospects, with special reference to its transportation requirements."

Other subcommittees are studying transportation by highway, by water, by air and by pipeline, "undertak-

ing to put together in convenient form, primarily for the information of railroad people, pertinent facts about each of these forms of transportation, together with appropriate recommendations as to the relation of railroads to them."

Still other subcommittees are studying "ways and means of improving railroad plant, equipment, training and methods."

The latter include the Subcommittee on Engineering and Mechanical Research, the recommendation of which was adopted by the A. A. R. board of directors when it created the position of Director of Technical Research. The recent appointment of Clyde Williams, director of the Battelle Memorial Institute, Columbus, Ohio, as technical consultant on research matters was "preliminary to the filling of the post of director of technical research," the statement reveals.

It goes on to emphasize that the "program of fundamental or basic research" to be carried on by the director "does not supplant, but is in addition to, the extensive and long-established research projects of the existing technical committees of the Mechanical and Engineering Divisions of the Association of American Railroads."

The statement next lists and indicates briefly the assignments of some of the other subcommittees—operating methods and procedures, labor and personnel, traffic, accounting and statistics, finance, taxation, consolidation, public relations.

"The approach," it says in closing, "is one of earnest inquiry, embracing nothing as superior because it is new, but clinging to nothing old merely because it is established. In that spirit the committee is undertaking to survey the whole field of transportation in America and to look and plan ahead for the future, to the end that there shall be adequate, dependable and serviceable transportation in the public interest economically and efficiently performed."

Wood Preservers Meet for One Day

Technical papers and committee reports crowd program. Particular emphasis placed on new preservatives, on the fireproofing of wood and on tests to evaluate fireproofing

LIMITING its sessions to a single day for the second successive year, the American Wood-Preservers' Association held its fortieth annual meeting in Chicago, on April 26, with 141 members and 49 visitors present. The program was crowded with 20 committee reports and 10 papers, which gave time for only limited presentations, in several cases by title only, and little discussion. Throughout the meeting, in both reports and papers, major emphasis was placed on new preservatives and on fireproofing, to the exclusion of addresses from railway and other users of treated wood with the result that the meeting offered little of direct interest to railway men, aside from routine reports on service records of treated wood and uses of treated wood for car lumber. Both morning and afternoon sessions were presided over by R. H. Colley, engineer, Bell Telephone Laboratories, Inc., New York, as president.

Membership at All-Time High

In his address, President Colley reviewed briefly the events of the last year, and emphasized the probable future use of new preservatives and the need for a thoroughgoing revaluation of preservative treatments. He referred to certain accelerated laboratory tests that are being developed, which will give in a few weeks the same information with respect to the results to be derived from various preservatives and treatment methods, and to the probable service life of the treated wood, that can be obtained now only through tests extending many years to the end of the actual service life.

Despite further drains that have been made on the membership by military requirements, the death of 11 members, and other causes, there was a net gain of 65 in the membership, bringing the total to 810 which, Dr. Colley announced, is an all-time high for the association.

At the closing session the following officers were elected: President, W. P. Arnold, technical director, Wood Preserving division, Koppers Company, Orrville, Ohio; first vice-president, S. D. Hicks, vice-president, Southern Wood Preserving Co., Pittsburgh, Pa.; second vice-president, J. H. Bremicker, Pennsylvania, Philadelphia, Pa.; treasurer, re-elected, Horace L. Dawson; members of the Executive committee, H. A. Haenseler, engineering department, Western Union Telegraph Co., New York; and L. W. Kistler, superintendent treating plants, St. Louis-San Francisco, St. Louis, Mo. For many years the association has recognized only creosote and zinc chloride as standard preservatives. However, in view of the widespread and growing use of other preservatives, the Committee on Preservatives was instructed to "present standards (specifications) for preservatives in actual commercial use, other than those covered by present standards." In line with this instruction, last

year, the committee presented specifications for chromated zinc chloride, Tanalith and zinc meta arsenite. Two other specifications were also presented, one covering methods of analysis for salt preservatives, and the second covering methods for determining the penetration of salt preservatives. These specifications were adopted as tentative standards. This year, the committee presented the same specifications with revisions, with the recommendation that they be advanced to standard.

Treatment Specifications

From the beginning, one of the important objectives of the association has been the co-ordination and standardization of practices through the development and perfection of specifications for the treatment of various species of wood and, in recent years, this has been one of its major activities. In pursuance of this objective, this year the committee that has been studying the pressure treatment of southern pine ties and lumber, presented a number of revisions to the tentative standard that was adopted two years ago, and recommended that, as amended, it be advanced to standard.

Another committee, which has been studying the possibility of treating intermountain fir and western hemlock in accordance with the specifications for treating Douglas fir, reported that, while air-dried western hemlock can be treated satisfactorily under this specification, because of lack of knowledge of the results of treating this wood in the green state, it recommended against combining western hemlock and Douglas fir in the same specification, for the present. The committee also reported that it did not agree that intermountain fir can be treated to comply with the Douglas-fir specification and recommended that it too be held out of this specification.

After six years of study, a committee, of which P. D. Brentlinger, resident inspector, forest products, Penna., is chairman, presented a final report on its instruction to prepare a specification for the pressure treatment of oak ties and lumber, and recommended that this specification be adopted as a tentative standard.

Service Records

A specification for the pressure treatment of southern pine piles was adopted as a tentative standard in 1939, with the omission of certain provisions that were considered worthy of further study. Since that time, the committee that prepared it has endeavored to supply these omissions and put the specification in form for final action. There were, however, wide differences of view point concerning requirements for steam conditioning, treatment for use in salt water, penetration and methods for determining penetration. These differences having been composed, the committee presented the amended specifications for advancement to standard.

Requirements for the inspection of preservatives, of plant and treatment procedure and of treatment results, have been under study in co-operation with other committees that have been preparing specifications for the treatment of various species of wood by pressure processes. These studies having been completed, the Committee on Inspection presented a specification for in-

spection for adoption as a tentative standard. All of these committees' recommendations were approved.

During the entire 40 years of its existence, the association has emphasized the value of knowledge of the actual performance of treated timber and has given much consideration to service records. The Committee on Tie Service Records, of which W. J. Burton, assistant to chief engineer, Missouri Pacific was chairman, presented reports on ties placed in test sections in tracks of the C. M. St. P. & P. and a summary of similar information on the C. B. & Q. These tests, which cover a wide variety of timber and preservatives that have been under observation for periods ranging up to 34 years, are yielding data on the service life of ties that are of high value.

In the Milwaukee tests, the life of untreated ties range from 6.5 years for untreated maple to 13.3 years for untreated Douglas fir, while the life of treated ties range from 13.4 years for chestnut treated with zinc chloride, to 48 years for maple treated by the Card process; to 46 years for maple treated with semi-refined paraffin oil; and to 46 years for red oak treated with the latter preservative.

In addition, so few of the red oak ties treated with creosote by both the full-cell and the Rueping processes and inserted in 1911 have yet failed that no estimate of their probable life can yet be made.

In the Burlington tests, only a summary of which was given, a total of 24,874 ties of 20 different species were inserted in 1909 and 1910. Only a few of the creosoted ties remain in service, and the average life approximates 30 years.

The actual life of untreated ties of the same species in these tests averaged 5.4 years, while those treated by the Card and Burnett process averaged 19 and 16 years respectively.

Detailed data were given by the Committee on Service Records of Marine Piles, of which A. S. Daniels, superintendent of the Texas & New Orleans railroad's wood preservation plant, was chairman, on 2,785,373 lin. ft. of creosoted piles in the Port of Seattle terminal at Seattle, Wash., all structures of which are in marine-borer-infested waters; similar data were given covering 3,065 creosoted piles in the Los Angeles, Cal., harbor; and information was presented concerning 5,500 piles salvaged from the Key System trestle and terminal at Oakland, Cal. The report also contained extended comment on the mineralized-cell-treated piles that were discussed in the report of this committee last year, which throws new light on the performance of piles treated by this process.

Pole-Line Installations

Post service records include such species as sassafras, quaking aspen, ponderosa pine, northern white cedar, jack pine, Norway spruce, Douglas fir, western larch, southern pine, eastern and western red cedar, black locust and red spruce, some of which were untreated. Treatment was given with both standard and commercial preservatives and with chemicals, such as mercuric chloride and sodium fluoride. The posts included in this report were set in Wisconsin, Mississippi, Texas, Kansas, Missouri and Colorado. Some of these posts were in test installations, while others were selected from service installations. The variations in woods, in treatment and preservatives, in climate and soil were so great that the information contained in this report cannot be stated briefly.

Another committee reported service data on 30 pole-

line installations, 5 of which are on the Canadian Pacific and 2 on the Reading; 8 were Western Union and 2 were Postal Telegraph installations; and the remainder were public utility lines. Twenty-three of the installations were made with poles that had been treated with creosote or with mixtures of creosote and coal tar or of creosote and petroleum; in one, the poles were treated with creosote and Montan wax; in four, with ZMA; one line of chestnut poles had been given a ground-line treatment with a proprietary preservative; and the remaining installation was untreated eastern white cedar.

In a report on the uses of treated wood for car lumber, information was given concerning the use of 3,053,000 ft. b.m. of treated wood in the construction or repair of freight cars, including creosoted decking, nailing sills, coal-car sides, saddle blocks and stringers, and salt-treated decking and running boards. Information was also given of 1,098 other cars in which treated material was used during the year. In addition, three roads were reported to have used considerable pressure-treated car lumber for an unspecified number of cars; and a manufacturing company was reported to be using prefabricated oak bearing blocks in the construction of tank cars, and creosoted shedding blocks in the construction of gondola cars.

Other Reports and Papers

In a report on diversified uses of treated wood, the committee recommended that the code of recommended practice for the use of pressure-treated lumber in protecting buildings against decay and termites, which was adopted as a tentative standard last year, be advanced to standard. This code provides that all members in contact with the ground must be treated with creosote, with a net retention of not less than 8 lb. per cu. ft. of wood.

It also provides for a choice of preservatives for other members not in contact with the ground, but requires pressure treatment with specified retentions for each of the preservatives.

An unusual amount of emphasis was given to the fireproofing of wood, four papers and a voluminous report on this subject having been presented. Obviously, full evaluation of the effectiveness of fire-retardant treatment can be based only on records of the performance of fire-retardant-treated wood that has been exposed to fires in buildings, as the evaluation of preservatives treatment is based on service life. However, such records are almost entirely lacking. For this reason, numerous laboratory fire tests have been devised in an effort to find some method whereby comparative evaluations of fire-retardant chemicals and fire-retardant treatments can be made. The committee report contains detailed descriptions of nine of the tests in common use, and included descriptions and illustrations of the equipment used in making the tests.

Other reports and papers of interest to the railways included a report on bridge and structural timber, by a committee of which T. H. Strate, division engineer, C. M. St. P. & P. was chairman, which contained descriptions of a number of creosoted trestles, as a basis for future service reports; a paper on Recent Treatment Practices on the Chesapeake & Ohio, by H. M. Church, general supervisor of bridges and buildings on that road; a paper on the Biological Environment in Treated Wood in Relation to Its Service Life, reporting results of studies of certain ties after many years service; and the fifteenth progress report on an international termite exposure test.

A Look at Tomorrow's Power*

Western Railway Club Paper discusses promising new types and appraises future of present types

By J. E. Davenport

Vice-President of Engineering, Development and Research, American Locomotive Company

IT IS necessary to review only a few of the papers presented before this club during the last ten years to recognize with what resourcefulness and alertness the railroad industry was examining its problems, improving its methods and bettering its equipment. The depression years, while they retarded the physical improvement of railroad properties, stimulated more efficient utilization of the available equipment and put a premium on more efficient methods. The growing intensity of competition from other forms of transportation was a further stimulus to progress.

We can see now, that the pre-war years, because of the very problems they brought, and because the railroad industry "had what it takes" were preparing us to meet the present ordeal of war. Certainly we are now living through the proudest moments in the long, proud history of railroading. If ever a justification was needed for the essential rightness of our system of railroad ownership and management, if ever a ringing answer was given to the question of the capacity of American railroad equipment and American railroad men, the world has it now!

Both in the period of preparation for today's wartime task, and in its magnificent performance, motive power has played and continues to play its traditionally vital part. Here too the picture of progress is most vivid when viewed in retrospect.

Diesel Locomotives

It was only ten years ago that the first Diesel-electric streamline train made its appearance in the United States. And it was exactly ten years ago this month that R. Tom Sawyer, one of my associates, spoke before this club on the subject of Diesel locomotives and, in prophesying a great future for this form of motive power, reported that there were already "over 100 Diesel locomotives in use in this country." These, of course, were all switchers. Today, there are over 4,000 Diesel locomotives in service, 800 of which are road locomotives. These comparative figures certainly underline the fact that the most significant development in motive power during the past decade has been the rapid emergence of the Diesel locomotive.

Even in 1934, the primacy of the Diesel in switching service appeared well-established. In the following years, the Diesel's outstanding advantage, namely availability, made itself felt increasingly in this field, where the obviousness of the advantage was not complicated by the special problems that arise in connection with road locomotives. The majority of Diesel switchers in service today are operating on a 24-hour basis, 6 $\frac{2}{3}$ days a week, under the more or less standard practice of using one

eight-hour period each week for inspection and adjustment purposes.

Experience has also provided some significant figures on the comparative maintenance costs with age of steam and Diesel switchers, the figures indicating that these costs increase with age for both types of power.

Maintenance Costs

A sufficient number of 600-hp. Diesels have been in service for eight years to compare maintenance costs during that time period with those for the 100-ton steam switcher. This comparison indicates that during the first year, the Diesel maintenance approximated 44 per cent of steam maintenance; during the eighth year Diesel maintenance approximated 65 per cent of that of the steam switcher.

Our conclusion is that during the useful life of the equipment, Diesel maintenance will be somewhat less than comparative steam maintenance in switching service, when considered with respect to the age of the locomotive.

Unfortunately, similar figures are not available for other types of Diesel locomotives, because present records do not cover a sufficient time period to be meaningful, reflecting the fact that the Diesel road locomotive, in many respects, must still be regarded as in its infancy. However, when a form of motive power holds as much promise as does the Diesel locomotive, we may be sure that the railroads and the locomotive builders will not rest until a good deal of that promise has been realized.

It is a promise based on certain familiar advantages, which however must be qualified by several considerations. The fact that the Diesel locomotive can be serviced rapidly, can run long distances between refueling, and requires no fire or ashpan cleaning, makes for its appealing high availability. On the other hand, we have to remind ourselves that high availability pays dividends only when traffic conditions are such that high availability can be converted into utilization. In this respect, high first costs continue to retard the widespread use of Diesel road locomotives.

The fact that the Diesel locomotive requires practically no water is a substantial advantage. Fuel costs per drawbar horsepower, however, are not greatly different from steam. The Diesel's high thermal efficiency, which permits it to operate on a comparatively small bulk of fuel is offset by the present high unit cost of the fuel itself.

The elimination of excess weight in postwar Diesels will be the principal means of reducing first cost. The way in which this weight reduction is accomplished should also have an important influence in reducing maintenance costs, as we shall see in a moment. Furthermore, there are good reasons to hope that savings in fuel cost can be

*A paper presented before the meeting of the Western Railway Club held at Chicago on April 17.

achieved through the design of Diesel engines which will operate on lower grade, cheaper oils than those now required.

In effecting these improvements—reduced weight, reduced maintenance and reduced fuel costs—it is apparent that the Diesel engine itself is the most critical unit in the locomotive.

For example, with respect to maintenance, the A. A. R. report of May 19, 1941, on Diesel road locomotives, gives us figures which show that 45 to 50 per cent of the total maintenance cost is chargeable to the Diesel engine. Chassis maintenance claims 30 to 35 per cent and the electrical equipment 15 to 20 per cent of the total. Whatever we can do, therefore, to effect substantial savings in the cost of maintaining the Diesel engine itself will have an important influence on the overall economic picture.

When it comes to weight saving, the direction of our efforts must be toward the design of engines which will deliver greater horsepower per unit of weight. At the same time, in working toward this objective we must avoid solutions which will result in increasing, rather than lowering maintenance costs.

If we seek added horsepower, for example, by increasing the number of cylinders, we run head on into the problem of correspondingly greater maintenance expense. Each additional cylinder means that many more valves, injectors, pistons, bearings and inspections, regardless of cylinder size. Development, therefore, should be in the direction of engines with a minimum number of cylinders to accomplish the required work, without going to the extreme of cylinders so large that the engine becomes too heavy, operates at too slow speeds or creates too much difficulty in removing parts for servicing.

In my opinion, the greatest reduction in the weight and cost of Diesel engines will come through smaller engines, designed to operate at higher speeds and making use of new metals and other developments which have been taking place in the airplane industry. The saving of weight and space will result in decreasing the length of the locomotive at the same time that the horsepower per cab is increased.

Whether tomorrow's Diesel engines will be predominantly two-cycle or four-cycle is an open question. Each type has its advocates. In fact, the only way we have been able to keep peace within our own family of engineers is to push research and development of both types as aggressively as we know how!

How Many Engines Per Cab?

Another question which remains to be decided with respect to future designs, is the ideal number of engines which should be located in each cab. There are those who believe no less than two engines per cab are necessary in road service, on the theory that one engine will then be available to move the locomotive in the event of engine failure. It seems to me that a sounder view is to design engines so that failures will not occur. Experience with Diesel switchers during the past ten years has certainly demonstrated a degree of reliability that makes such a goal appear entirely practical.

All in all, the trend in Diesel locomotive design is toward simplification of construction. When it comes to the matter of guiding axles, for example, experience with high-speed swivel-truck cab designs appears to substantiate the view that all the weight can and should be carried on the drivers, without any necessity for guiding trucks and with a minimum number of axles.

In keeping with the trend toward simplification, it is

interesting to note that some transportation engineers consider that the swivel-truck cab-type of Diesel locomotive, with two, three or four units is a temporary expedient, and that the Diesel road locomotive of tomorrow will be of single cab construction with a steam-locomotive-type wheel arrangement, resulting, they believe, in marked weight reduction.

Whatever form tomorrow's Diesels may take, they will be designed to develop and sustain the largest possible drawbar pull at the higher train speeds. Excessive starting effort is relatively much less important. The necessity for what the steam locomotive designer calls "high capacity" has been made amply clear by curves denoting total horsepower requirements of a train at various speeds, on various grades, and with adequate power reserve for reasonably fast acceleration.

Thus far, I have painted an optimistic picture of the road Diesel's future. We might, indeed, take another step and indulge in the thought that the fullest advantage of the Diesel locomotive would be realized by those railroads which were able, because of especially favorable conditions, to undertake a complete Dieselization not only of yards, but of the entire railroad, thus eliminating water stations, intermediate fueling points and all the appurtenances of steam operation.

The Question of Fuel Supply

However, in any speculation as to the future of the Diesel, it would be unsafe to ignore the question of fuel supply. Fuel is an important item in Diesel operating costs and it is entirely possible that the postwar years might see a rise in Diesel fuel prices to a point where it would markedly affect the economy of Diesel operation.

The petroleum situation, however, is so complex, and contains so many unknown factors that it is impossible to draw positive conclusions as to the future. We hear a great deal today about the state of our petroleum reserve; that new discoveries are not keeping pace with the tremendous consumption induced by war needs; and that we may find ourselves facing an actual shortage of domestically produced petroleum in the next ten years.

It is likely that the postwar period will bring a record demand for the higher-priced petroleum products, such as high-octane fuel for an expanding air transport industry and gasoline for automobiles, trucks and buses. If this demand is accompanied by a diminishing domestic crude oil production, it may create a relative shortage of the lower-priced distillates used in Diesel engines, resulting in higher prices. Such a development might or might not be partially offset by imports. It is also true that we have an abundant supply of alternate sources of petroleum, such as natural gas, oil shales, tar sands and coal—all of which may be converted into petroleum products—but only at a somewhat higher cost than the cost of producing the same products from crude oil.

These possibilities, although they must remain in the field of speculation, may serve as an added impetus to the development of Diesel engines which will burn cheaper, heavier grades of fuel than are now used in railroad service.

It is also conceivable that considerations of national security and long-range economic planning may lead to a program of fuel conservation in which the uses to which coal, oil and other fuels may be put will be prescribed by government policy. In this connection, electric power will probably be obtainable in large blocks at very low rates in certain sections of the country, suggesting the use of this type of power more extensively in mainline freight haulage.

About the only certainty in this entire uncertain fuel

picture is the fact that we have enough coal to last for two or three thousand years. There are ample deposits throughout the country which can be worked at reasonable cost. Although coal is more expensive to handle than oil, and is utilized at a lower thermal efficiency, in most parts of the country it is the cheapest fuel per heat unit and in areas where low-cost coal is available on the line it will, in many instances, give the lowest fuel cost per ton-mile hauled.

Steam Locomotives

We might well summarize current opinion as to future of the Diesel locomotive by saying that the engineer's main objective will be to design locomotives with greater horsepower per cab. In the case of the steam locomotive, on the other hand, the objective might be stated as further improvement in its availability, through added efficiencies involving design considerations and metallurgical applications which will reduce servicing and refueling time.

We are all familiar with the progress made in this direction in recent years. Such factors as larger tenders with increased water and coal capacity, improved ashpan design to reduce cleaning time, mechanical lubrication for all wearing parts, and roller bearings for all journals as well as main and side rods, have contributed materially to high availability, such as the outstanding mileage records of the New York Central of 20,000 to 24,000 per month in New York to Chicago service for selected trains.

Many other examples might be cited which would also emphasize the benefits which result from extended runs and from the provision of properly planned servicing facilities both at intermediate and terminal points. The experience of the Norfolk & Western with its 2-8-8-2 Mallets is an interesting case of pool operation, in which maintenance-point records show that only 3¾ hours are required for servicing and refueling and one hour less at the non-maintenance end of the run. Thus the locomotives are available 17½ hours out of 24, although their actual utilization is conditioned by train schedules and demands for power.

Another example is the operation of the Atchison, Topeka & Santa Fe between Kansas City and Los Angeles where the 1,788-mile run is made without change of locomotive.

Much progress has also been made in the direction of increased efficiency with respect to greater power. The streamlining of all steam passages from the boiler to the exhaust is an important feature of modern steam locomotives, by means of which drops in steam pressure are reduced and the power output per unit of steam increased.

When we come to thermal efficiency, however, we reach the old, familiar ground on which the steam locomotive, with a rating of about six per cent has always suffered and continues to suffer in comparison to the Diesel, with an efficiency of 23 per cent.

Present tubular boilers with the firebox of the old Stephenson design have about reached the limits of their development under the restrictions imposed by railroad operation. It is doubtful if any other type of boiler would provide the same combination of characteristics: capacity to evaporate 50 tons of water per hour up to 250 lb. pressure, at 760 deg. F. temperature; weight in the neighborhood of 65 tons, including feedwater heater, superheater, grates, and the necessary piping and accessories; simplicity of construction and maintenance.

The attainment of greater thermal efficiency will come with the advent of water-tube boilers capable of sustain-

ing higher pressures and temperatures. Boilers of this type, for pressures up to 600 or 800 lb. per sq. in., and utilizing new alloys in their construction are in the development stage and promise the added advantages of lighter weight and greater safety.

Higher steam pressures and temperatures, however, will require improved utilization of the steam in the cylinders or in turbines. Poppet valves, which have been used successfully abroad and which are creating increasing interest in the United States, are a step in this direction. Nevertheless the fact remains that the direct-connected steam locomotive will always have a limited thermal efficiency, due to the narrow temperature range within which it must operate.

It is interesting to recall, at this point, that in 1934 Samuel Vaclain in a talk before this club, described his own idea of a future road locomotive in these words: "a three-cylinder compound using 350 lb. steam pressure of the 4-8-4 type, with 80-in. driving wheels." So far, after ten years, Mr. Vaclain's ideal locomotive has not put in an appearance, but in view of metallurgical advances and because of the sound fundamentals inherent in such a design, it would not be surprising to see something along these lines given serious consideration in the near future.

Many other improvements in the steam locomotive as we know it today are also in the offing. X-ray apparatus, now being used extensively in war production, will be available after the war, and will assist materially in advancing the welded locomotive boiler, which will mean reduced weight and the practical elimination of the pitting and caustic embrittlement now experienced with riveted boilers. Further weight reductions will be effected in machinery and running gear and in the non-structural parts of the locomotive and tender through the use of low-cost alloy steels. The same metals, applied to reciprocating parts will also largely reduce dynamic overbalance on the rail.

Much work has been expended looking toward the use of pulverized fuel and, though these efforts to date have been unsuccessful, additional investigations may be expected in the future and, if successful, should yield definite efficiency increases.

Steam Turbine Locomotives

Another experimental development of interest is a novel type of steam locomotive recently placed in service on the B. & O. and the Pennsylvania. These locomotives are of rigid-frame constructions, with two pairs of cylinders driving two groups of driving wheels, thereby avoiding the high piston thrust and machine friction which would result if the wheels were driven from one pair of cylinders.

Developments in the direction of individual axle drives, with a small steam engine connected to each driving axle instead of concentrating power in one large unit, have been largely confined to Europe. Those interested in the engineering features of this locomotive design, will find a valuable description in the February, 1943, edition of V. D. I.

In Europe, many efforts have been made in the production of steam turbine locomotives, both condensing and non-condensing. A number of these locomotives are still in operation, indicating some success in this direction. American horsepower requirements on the order of 5,000 to 6,000, raise the question as to whether one turbine and one gearbox, or individual turbines and drives would be the preferable method of transmitting power to the wheels. Both solutions have their drawbacks, which suggests the reason why the General Electric-

Union Pacific's experimental steam-turbine locomotive was developed with electric drive. This unit contained a high-pressure oil-burning boiler and a condensing turbine. Generally, it has been the experience that a condenser unit so complicates design and maintenance as to make that feature of the steam turbine locomotive unsatisfactory, although it is admitted that a successful conclusion would produce power with far less water than the cylinder-type locomotive.

The non-condensing turbine offers a possible slight advantage in terms of horsepower output per unit of steam, compared with reciprocating cylinders, but the variation in turbine efficiency with load will materially affect the overall efficiency of a direct-connected design, and when used with the electric drive, transmission losses must be taken into account.

We are looking forward with a great deal of interest to the performance of the steam-turbine, non-condensing, direct-drive unit which will shortly be in service on the Pennsylvania.

Gas-Turbine Locomotives

Another development which we may expect to hear more about in the next ten years is the gas turbine locomotive for road service.

Gas turbines are not new and a long list of inventions is associated with this principle, going back as far as a patent taken in 1791. It was not until early in this century, however, that gas turbines were produced that showed plus efficiencies, and even today their most effective applications are under conditions where the gas for driving purposes is derived as a by-product of some other operation, such as superchargers used on airplane motors and gas turbines employed to drive compressors in Houdry process refinery installations. The only locomotive application reported so far is the Brown-Boveri development in Switzerland, which utilizes an electric drive.

There are good grounds for optimism as to future of the gas turbine. Metallurgical progress, spurred by the war, has developed materials capable of sustaining appreciable stresses at temperatures above 1,000 deg. F. without failure, excessive creep and other difficulties. Reputable manufacturers of gas turbines report that these alloys will operate at an inlet temperature of 1,200 deg. F. with the same reliability as existing materials used in steam turbines at 900 deg. F.

For locomotive operation, and basing design characteristics on an inlet temperature of 1,200 deg. F., gas turbine prime mover equipment would weigh approximately the same and occupy approximately the same space as the present road Diesel locomotive of equal power.

Proponents of this type of locomotive claim that it will have a lower initial cost than the Diesel although about twice that of the steam locomotive; also that availability and dollar efficiency of fuel consumption will equal that of the Diesel and that maintenance costs will be less.

Despite the natural enthusiasm of the gas turbine's proponents, it is difficult to visualize its attaining the efficiency of the present well-designed Diesel engine, which burns fuel oil in the cylinders at a temperature of 3,000 deg. F., and which has about twice the thermal efficiency of any known gas turbine.

It is interesting to note that there is no theoretical reason why the gas turbine should not become an adjunct to the Diesel engine, since the temperature and pressure of the Diesel exhaust are in line with the requirements of the turbine. It should be possible to increase the

thermal efficiency of the Diesel by adding to its own normal heat conversion some 18 per cent of the heat left in the exhaust, thus eliminating that parasitic loss. This suggests the possibility of developing a brake horsepower hour at as little as one-third of a pound of fuel oil. Time will tell whether such an attempt to squeeze the last foot pound of work out of the fuel will be worth the cost.

The Postwar Outlook

I have attempted in the course of this discussion to highlight current trends in motive power development from the standpoint of the engineer. It is impossible, however, to dissociate such a discussion from the many factors in practical railroading which, in the final analysis, must and should influence the evolution of motive power.

These considerations include operating costs and fixed charges, adaptability to the services involved, availability of fuel and water supply and density of traffic. Other factors, too, such as the future of our national fuel economy with relation to petroleum, and the influence of great government power projects must be taken into account.

Main-line electrification, especially in some sections of western and southern lines appears a decided postwar possibility. Cheaper metals for transmission lines, cheap power available in large blocks, low interest rates in investments to encourage postwar employment, vacuum tube converters and other developments may offset pre-war obstacles to a wider use of electric locomotives, particularly if an unfavorable situation with respect to petroleum should retard the normal growth of the Diesel road locomotive.

Pound for pound, the electric locomotive can outhaul either a steam or Diesel locomotive, its tractive force being limited only by the weight on drivers. The energy from the line is practically unlimited, so that the amount of horsepower the locomotive can develop is restricted only by the amount of current the motors can carry without overheating.

A further possibility is a combination of mainline electrification and the use of Diesel-electric switchers and local freight train units, with the locomotives designed to operate on overhead power on the main line, and to operate on the Diesel engine in locations where overhead power is not available.

In concluding this discussion of motive power, I should like to emphasize one fact: While we may look forward with considerable interest to the appearance of more and efficient types of locomotives in the next ten years, there is no doubt that the steam locomotive will continue to play a major role for a long time to come.

Steam, Diesel and electric locomotives—all three—were in active development when the war interfered with further design changes. These developments will be renewed with intensified vigor when hostilities cease. The dominant progress will be toward steam locomotives of still greater power, efficiency and availability, and a continued rapid evolution of Diesel locomotives for freight and passenger service.

There is always a danger, in talking about the future, of overlooking the practical realities of the present.

In the sense of the immediate postwar period, tomorrow's locomotives are already here—locomotives of far greater efficiency than the bulk of the motive power on which our railroads are forced to rely in the present emergency. To the extent that these modern locomotives have found their way into service, they are producing outstanding performances. They are demonstrating, fur-

thermore, the capacity which the railroads will need, replacing present obsolete equipment, if they are to meet the intense competition which will follow the first days of peace.

As we look toward the more distant future, conscious of railroad history past and present, it seems certain that our expanding industrial civilization will require expanding functions of our great railroad system, including the vital job of hauling heavy, basic commodities over long distances at low rates, a job which no other mode of transportation can perform as well. We may be hopeful that a public understanding of the close relationship between our very survival as a nation and the survival of our railroads, now being demonstrated, will help create conditions under which the railroads will be free to develop their greatest usefulness. We may be confident, furthermore, that in this march of progress the builders of motive power will continue to see to it that tomorrow's locomotives will always be ready when they are needed—today.

Discussion

R. P. Johnson, chief engineer, The Baldwin Locomotive Works, emphasized the importance of a dollars-and-cents appraisal of the various factors in locomotive cost in finally determining the choice of motive power for a given situation. In commenting on Mr. Davenport's statement that "tomorrow's" locomotives are already here, he called particular attention to the four-cylinder rigid frame type of steam locomotive, listing six advantages of this type of construction: (1) the use of a shorter stroke and lower piston speeds allows higher mean effective pressure at a given locomotive speed; (2) the lower piston load permits a smaller bearing at the back end of the main rods and reduces the weight of moving parts; (3) the rod arrangement is simple, requiring a main side-rod connection large enough to transmit the load to one pair of drivers only; (4) splitting up the drivers of a 4-8-4 locomotive into two groups as in the 4-4-4-4 type reduces machine friction; (5) a 4-4-4-4 type with four 20-in. cylinders, each with a 12-in. piston valve is equivalent to a 28-in. cylinder with a 24-in. piston valve, thus increasing the ability to handle steam more efficiently; (6) the maintenance of this type of locomotive should be less than that of a 4-8-4, a 2-10-4, or an articulated type locomotive.

H. A. Townsend, chief mechanical engineer, Lima Locomotive Works, Inc., called attention to Mr. Davenport's statement that, despite the much higher thermal efficiency of the Diesel locomotive than that of the steam locomotive, the fuel costs per locomotive horsepower-hour are not greatly different and pointed out that in selling transportation it is the dollars and cents that count.

He reviewed the tremendous improvements which have been made in the steam locomotive, mentioning feed-water heating, the superheater, the improvements in gas areas through the boiler and steam areas through the superheater, the Thermic syphon, circulators, improved stokers, grates, and refractory arches; the booster, which can now operate at speeds of 30 to 35 miles an hour, and other machinery improvements, including cast-steel beds, roller bearings, force-feed lubrication, automatic wedges, improved pneumatic sanding equipment, and the long-travel valve gear. He stressed the poppet valve as a means of increasing the horsepower output and suggested that some of the new alloy-steels which have been developed during the war will influence the future development of the steam locomotive.

Plan Research on Freight Claims

IMMEDIATE and postwar measures to insure safer transportation of freight were adopted at the annual meeting of the Freight Claim division of the Association of American Railroads at Cincinnati, Ohio, on April 25-27.

Heading the list of the measures which were proposed is a central research laboratory at which containers and loading methods can be tested for the purpose of establishing specifications that can be incorporated in tariffs. It was recommended in a resolution passed by the members that such a laboratory be established in the Freight Container Bureau of the A. A. R.

The meeting, over which Chairman C. D. Hart, general claim agent of the Atchison, Topeka & Santa Fe, presided, was attended by 325 representatives of the railroads, the Army and other governmental departments. Officers elected for the ensuing year are: Chairman, J. J. McManus, freight claim agent of the Northern Pacific; first vice-chairman, J. M. Heath, freight claim agent of the Lehigh Valley; and second vice-chairman, G. W. Loderhose, freight claim agent of the Chicago, Milwaukee, St. Paul & Pacific.

Research Committee Formed

To further perfect claim prevention and settlement, a Special Committee and Freight Claim Research and Planning has been appointed by the division, "to go into all phases of present organization and procedures with a view to increasing the efficiency of claim work in the postwar period and into matters that may be subject to improvement now." This committee reported that it had prepared an agenda of 47 proposals for freight claim and loss and damage prevention which it would use as a basis for further study and action. The committee consists of the following:

C. H. Dietrich (chairman), executive vice-chairman of the Freight Claim division; T. B. Barry, freight claim agent of the Western Pacific; H. V. Cooper, freight claim agent of the Missouri Pacific; G. S. Gaillard, general claim agent of the Central of Georgia; A. G. Gilmore, general freight claim agent of the Canadian National; M. A. Hartigan, Jr., general claim agent of the Virginian; W. C. Johnson, freight claim agent of the Chicago & North Western; H. W. Kerns, assistant freight claim agent of the Pennsylvania; G. W. Loderhose, freight claim agent of the Chicago, Milwaukee, St. Paul & Pacific; F. G. Love, superintendent of property protection of the New York Central; M. C. Manning, freight claim agent of the Maine Central; J. T. McManmon, general freight claim agent of the Great Northern; J. J. McManus, freight claim agent of the Northern Pacific; J. L. Puig, freight claim agent of the Illinois Central; and A. V. Tate, assistant general claim agent of the Gulf, Colorado & Santa Fe.

The importance of postwar plans was emphasized by Chairman Hart who said, that next to good service in the transportation of freight, the prompt settlement of claims will be the best solicitor the railroads can have in the competitive postwar period.

Continuing he said:

"This does not mean that claims should be paid before liability is established and the amount of the damage determined, but

that essential facts should be obtained promptly and the claim disposed of either by payment or disallowance without delay.

"Although loss and damage to freight has increased to \$42,050,364 in 1943," he continued, "it is not within hailing distance of the amount paid in World War I. The first war year of World War I was 1918 and of World War II it was 1942. Ton-miles in 1942 were 66.8 per cent in excess of those of 1918 but the loss and damage bill was 42.6 per cent less than in 1918. In the second war year, the comparative showing is still better. Loss and damage in 1943 was 59.8 per cent less than in 1919, in the face of an increase of 97.5 per cent in ton-miles.

"This indicates the value of our campaign over the past 22 years and indicates also that shipper and carrier, working together, can reduce this bill when the lights go on again and we return to peacetime pursuits."

Safe Transportation Vital to War

Safe transportation of material to battle fronts was the subject discussed by Brig. Gen. Robert H. Wylie, assistant chief of transportation of the Army, who said in part:

"With us there is no answer to failure. If the stuff does not get there, it means that an attack fails, a soldier goes hungry, or a plan of operation miscarries. If it arrives in bad order, it means that a fighting man is rendered idle because of lack of equipment—which is just as advantageous to the enemy as if he were a casualty. Or it means that a vital message does not carry through in a New Guinea jungle because a telephone wire snapped through damage done in transit, or it means that a man died because of the surgical supplies that were not there, or that a bomber was grounded because there was not fuel. There is no way to settle claims on things like that.

"In sum, we can't fail, because if we do, the whole nation fails with us. Every one of us in transportation knows that while transportation cannot win the war, a failure in transportation can surely forfeit the war. The rigors of war are too tough for boxes made in accordance with the standards of peace. We are stacking things higher in freight cars. The stuff has to hold up in the roughest seas and in voyages measured in five-digit figures.

It must survive handling off of ships onto landing craft, and the rough treatment of being put ashore where equipment is scanty or perhaps non-existent. The V-board container, which is now standard for military shipments, has a bursting strength of some three times the old domestic fibre or corrugated box—and its waterproof qualities are much greater in proportion.

"Under the pressure of war, we have learned new methods and devised techniques that may be of continuing value. I don't want to suggest that it will clarify your addressing system to start calling Omaha by some such name as 'Toad' or Walla Walla by the designation of 'Bugs.' But I do think that some of the practices in uniformity and brevity will prove useful to the railroads themselves, and I am still more certain that our experiments in improved packaging will rebound to the assistance of the railroads.

"There are lessons of lasting benefit in our system of traffic control by which the Transportation Corps and other agencies of the government, with the consistent cooperation of the railroads, have been able to handle a volume of passengers and goods that we would not have thought possible a few years ago. Our system of permits and controls, extending not only to Army shipments but also to Navy and lend-lease traffic and other commercial traffic, has meshed the performance of inland transportation with the capability of our ports. We have avoided both apoplexy at the centers and paralysis at the termini of our transportation system."

Every department of railroading has a responsibility in the safe transportation of freight, John J. Brinkworth, vice-president and general manager of the New York Central, asserted in addressing the meeting. He said further:

"If we are going to get results, we have got to pin it down to definite and specific activity both on the part of the shipping and receiving public and, particularly, on the part of railroad

employees. It is the duty and responsibility of the car inspector to inspect and mark cars for the proper lading to which they are to be designed. It is the duty and obligation of yard crews who serve industrial plants and I.C.I. freight house locations to see that proper cars are placed at the various loading points in accordance with the markings of the car inspector, as previously mentioned.

"In the yards the old subject of rough handling is constantly with us. It has been determined by actual test that a 4-m.-p.-h. coupling speed is reasonable and should permit switching without damage to contents. Switching crews should be so instructed, and supervision should constantly watch this feature and call attention to any cases of severe impact in switching. A number of our yards are equipped with hump facilities, and it is of the utmost importance that the grades of such yards be proper and that cars are switched without heavy impact. It is the duty of the yardmaster constantly to watch this feature because the item of rough handling is outstanding in your freight claim reports.

"It is the duty and obligation of engine crews on switching engines to handle cars carefully. Engine crews on road trains have a direct interest in freight claim prevention. Trains today are fast and heavy, and proper handling of air by the engine-man, proper observance of signals, proper observance of speed restrictions, and everything that goes toward smooth handling are of absolute necessity to avoid the heavy shocks that sometimes occur in our road freight train operation.

"It is the duty of the receiving clerk to see that the freight unloaded from the shipper's truck is in proper condition, in proper containers, properly marked, and that the shipping order shows the proper description and complete information on the shipment. The freight house checker must check the freight properly at the time of its receipt from the shipper's truck, must see that it is properly loaded onto the freight station trucks and moved to the proper destination car.

"The freight house trucker must handle the freight assigned to him in a careful manner so as not to drop it from the truck or knock it against some obstruction, and, of particular importance, he must see that it is placed in the proper destination car.

The stevedore or checker at the car must see that the freight is properly loaded to avoid not only direct damage to the freight but contact with other freight. The bill clerk has a very definite obligation and responsibility to see that the waybill is prepared with complete information so that the car will travel through to destination without no-bill troubles. The track man must see that the track is in good condition, to avoid derailments from this cause, which enters to such a large extent into freight claim payments.

"The avoiding of derailments or accidents because of signal conditions is definitely a help in the reduction of freight claims. Finally, I cannot stress too strongly the importance of freight agent supervision and divisional organization supervision constantly to visit and observe the handling of both carload and less carload freight, all with the thought in mind of the importance of getting freight from origin to destination without damage, loss or unusual delay."

Claim Prevention

Henry C. Pribble, general claim agent of the Atchison, Topeka & Santa Fe, pointed out that arbitrations and appeals in connection with prorating freight claim payments have been reduced over the years until they have "dwindled to a mere dribble." This, he explained, has been due to the railroads' "sound and sensible principles and practices in the investigation and disposition of claims."

Progress made in the prevention of loss and damage and plans for future action were outlined in the report of the Committee on the Prevention of Loss and Damage, of which E. B. DeVilbiss, manager of the insurance department of the Pennsylvania, was chairman. The report, in part, follows:

"The continuance of the war and its inevitable effects have intensified the prevention problems of carriers. The rapid turn-

over and acute shortage of labor, increased use of old and reused containers, inadequate packaging of merchandise and general inattention to recommended good practices of handling freight and maintaining suitable records, have made the general situation worse rather than better.

"We mentioned last year that several members had increased their road forces and their supervisory forces. One member has now reported the assignment of experienced agency men to supervisory work on each division, devoting their time to agency supervision, with particular emphasis on less carload freight. Appeal is made to the membership to do likewise.

"Your committee, last fall, sponsored a course of training in packing and loading freight under the auspices of the U. S. Forest Products Laboratory, Madison, Wis. Sixty-five representatives of member carriers and others took advantage of this opportunity to refresh their knowledge and keep abreast of the changes in the technique of designing, manufacturing and closure of shipping cases, and in the stowing and bracing of cars. In the opinion of all who took this course, it was worth the time and the effort. More courses of this kind should be inaugurated.

"Although we are firmly of the opinion that container manufacturers can contribute a great deal to the scientific development of better containers for the safe transportation of bottled goods by carefully studying the container needs of various sizes and shapes of bottles, we still doubt this will be done until each shipper of bottled goods insists upon container manufacturers concentrating upon laboratory and research developments as a part of the service which should be rendered to customers.

"People have been wont to say that the principal trouble is not with the container, but rests in the abuse of the container; we agree that this is a large factor. All handlers, shippers, carriers, and receivers are guilty in some degree, and one of the purposes of the prevention campaign is to secure a good container and good handling. We think we can approach this end by establishing a system under which destination agents and consignees will report deficiencies, which can be relayed to the source and reach the authorities in charge of supervision.

"There are three important failures in the use of reused containers—failure of the container to fit the contents, causing broken joints—failure to close the container properly, a very prominent failure with large containers cut down to smaller size—failure to use strapping to increase the security of reused containers. These are usually glaring faults subject to ready observation, even by inexperienced personnel, who, seeing such examples every day, readily reach the conclusion that they will withstand transportation.

Eggs and Sewer Pipe

"A large increase in damage to eggs has resulted from a number of factors. With a view to designing a stronger fibre box (now generally used due to the shortage of wood), laboratory tests were made of practically all fibre boxes on the market by the U. S. Department of Agriculture, egg and storage interests. New and improved boxes were designed. Specifications for those boxes, also for the improved nailing of the wood box, have been docketed by the classification committees for public hearing.

"In Eastern Claim Conference territory, a working committee was appointed to restudy the sewer pipe situation. This committee consists of a field representative from each of three large originating carriers, headed by the assistant chief engineer of the Freight Container Bureau, and its purpose is to gain further improvement in loading and bracing of sewer pipe.

"The furniture damage problem has been under consideration by the chief traffic officers, the National Furniture Traffic Conference, and the classification committees. Pending further action in respect to rates and classification, a number of men were authorized to work under the jurisdiction of the classification committees, and to visit furniture manufacturing plants to ascertain the conditions and to advise manufacturers of changes necessary to make their packing conform to present requirements. Nine men and a supervisor comprise the inspection group, which will also look into loading methods. It is proposed to consume one year from July, 1943, to determine what additional steps may be necessary, based upon the findings made.

"A special committee of the Division has been appointed to study furniture, each territory being represented thereon. This committee will study the entire field and report in due course.

"Good management makes place for special supervision when

required to protect some continuing bad situation where regular means are not available. This can often be done by the simple device of changing routine. Under present conditions the successful handling of furniture is a very difficult operation. Experience shows that much unnecessary damage occurs when furniture handling is left to the undivided, undirected attention of a group of freight handlers; therefore, the thought has been developed that in large freight houses one foreman or other key man should have added to his duties that of studying and advising on the proper handling of furniture for the benefit of the various gang leaders or foremen. This thought is worth considering in other situations.

"Members will remember the vast movement of tool machines to the various defense plants when the war started and the successful plan whereby destination roads selected certain representatives to report failures, which origin road representatives followed up with shippers. This plan is still available.

"We recommend that Operating-Transportation division loading pamphlet No. 21 covering machinery be placed with each machinery shipper on member railroads and with car foremen, traffic representatives and agents, and that shippers be urged to call on the car department or other designated officers when they are not absolutely sure of the requirements.

Stop-Off and Multiple-Load Shipments

"The movements to defense plants mentioned above will some day represent a return movement of secondhand machinery and we suggest that now is the time to plan for the same setup used for supervising the original move. We shall have available the educational material prepared by the Freight Container Bureau in respect to crating and skidding. It will be necessary to enlist the interest of the Traffic and Industrial departments in order that prospective movements will be known in time to supply the shipper with the necessary rules and other advisory material. We recommend that members now make preliminary preparation.

"Last year we mentioned the hope that early conclusion would be reached in respect to regulations locating the responsibility for the loading, unloading, restowing, and checking of the individual consignments in stop-off and multiple-load cars. Our hope has not yet been realized.

"Some shippers of sacked goods have devised a simple method of separating multiple loads by placing separate lots in each end of the car, tapered to the doorway, covering the load with paper and placing the succeeding loads over the paper. This has the effect we seek, of permitting the first consignee to remove his consignment without disturbing the balance of the load.

"A shipper desiring to meet government regulations and still serve his customer satisfactorily will consider the use of bulkheads for segregation purposes. The railroads have found bulkheads successful in their own loading; shippers will also.

Fresh Fruits and Vegetables

"The upward trend in damage to fruits and vegetables can be attributed rather definitely to many factors beyond the control of the carriers, as well as to the hazards of wartime rail transportation. Scarcity of materials, shortage of manpower; relaxation of supervision; as well as certain features of price control have diverted attention from the importance of using tried and proven methods, under the guise of wartime emergency, without due regard to the fact that damage to an inadequately prepared shipment is even more inevitable under wartime transportation than it is in normal times. The fact is that failure to comply with the specifications of authorized containers; the use of substitute containers made of various materials, and non-compliance with loading rules, are a prolific source of damage.

"One of the most important direct influences of wartime transportation on fruits and vegetables arises from the necessity of conserving motive power and refrigerator cars, as promulgated by O. D. T. General Order 18 requiring heavier loading. Destination inspection findings and suggestions have been used to good advantage by some shippers in their efforts to develop safe maximum loading methods. The use of cushioning material over the floor racks of refrigerator cars loaded with commodities in sacks, notably potatoes and onions, has made it possible to comply with the 25 per cent to 40 per cent increase in weight of these carloads required by O. D. T. 18, with no material increase in transportation damage."

Railroads-in-War News

Disputes on Vacations Going Separate Ways

Three go through the Railway Labor Act procedures while two go to Perkins

Following through in accordance with the pattern fashioned during the year-end wage controversy which brought on War Department operation of the railroads, the disputes regarding the paid-vacations phase of the settlement are being processed under the Railway Labor Act insofar as they concern the Brotherhood of Locomotive Firemen & Enginemen, the Order of Railway Conductors, and the Switchmen's Union of North America, while the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Engineers have taken their case to President Roosevelt who has referred it to Secretary of Labor Perkins.

The B. of R. T. and the B. of L. E. accepted the President as arbiter of the year-end controversy while the other three unions refused; and there has resulted the present split between the two groups.

Will Arbitrate—With respect to the vacations dispute involving the B. of L. F. & E., the O. R. T. and the S. U. of N. A., the National Mediation Board announced last week that it had secured an agreement between those unions and the carriers for arbitration of the controversy. The board of arbitration consists of L. W. Horning, vice-president—personnel, New York Central, selected by the railroads; Carl J. Goff, assistant president, B. of L. F. & E., selected by the unions; and I. L. Sharfman, appointed by N. M. B. when Messrs. Horning and Goff reported their inability to agree upon the third member. Dr. Sharfman was chairman of the National Railway Labor Panel emergency board which last year recommended the eight-cents-per-hour increase for non-operating employees. Economic Stabilization Director Vinson disapproved, thus launching what became the non-op phase of the year-end crisis.

How Many Days Is "a Week"?—The arbitration of the vacations dispute will begin at Chicago "within 10 days," the N. M. B. announcement of April 28 said. As the announcement also pointed out, the Railway Labor Act makes the award of an arbitration board "final and binding upon the parties." It is filed with the United States District Court and the court enforces the award. The principal issues involve the amount of service that must be rendered by an employee to entitle him to a vacation; a formula for deter-

mining the amount of vacation pay, including a determination as to whether "one week" means six days or seven days; and the time in which vacations shall be taken and the conditions under which they may be denied and pay allowed in lieu thereof.

Chance for Conflicting Decisions—

The issues in the dispute involving the B. of R. T. and the B. of L. E. are the same except for the first, these two organizations having agreed with the carriers that vacations will be given those working, during the preceding calendar year, 160 basic days in miles or hours. The proposal of the other organizations is that vacations be given those performing service in four or more calendar months of the preceding year.

It was stated at the Department of Labor this week that Secretary Perkins had not yet decided how she would proceed to the settlement of the dispute. Some speculation in connection with the situation has pointed to the possibility of conflicting decisions. In that connection, it has been suggested that Secretary Perkins might avoid such a conflict by naming the Sharfman board as her board, too; but the split among the labor organizations might preclude such a seemingly happy solution.

O. D. T. Reinstates Movement of Bulk Grain on Lakes

Movement of bulk grain on the Great Lakes, including grain consigned to or by the Commodity Credit Corporation, was reinstated May 2 by the Office of Defense Transportation. "Congestion at elevators in the lower lake ports caused by this season's unprecedented bulk grain movement made the reinstatement necessary," the announcement said.

The reinstatement was effected by Partial Revocation of Suspension Order ODT 25A-1 and Amendment 1 to General Order 25A. The original suspension order will remain in effect for Great Lakes vessels carrying other commodities until May 15.

Hails Railroad Cooperation on Wastepaper Salvage

Expressing his "gratification" at the work being done by railroads in connection with the salvage of wastepaper, H. M. Faust, director of the War Production Board's Salvage Division, noted in an April 29 statement that the industry reported 2,360,000 lb. for January and 2,700,000 lb. for February. And this does not include the total amount salvaged by railroads, owing to the fact that some of them turn their paper over to local organizations.

Individual railroads reporting "striking increases" in the poundage salvaged were listed by Mr. Faust as the Louisville & Nashville; Pennsylvania; Union Pacific; and New York Central.

New "Don't Travel" Appeal by O. D. T.

Johnson asks public to leave transportation facilities for "invasion traffic"

Another "don't travel" appeal was made this week by Director Johnson of the Office of Defense Transportation who based this latest plea for public cooperation largely on the fact that "this is an invasion year" when passenger transportation facilities must be made available for wounded soldiers returning on hospital ships and replacements moving to ports of embarkation.

Travelers May Be Stranded—"The transportation system must be free to respond to any demands that the occasion may make upon it," Colonel Johnson said. "Any unessential traveler who gets caught in the invasion traffic will have only himself to blame if he is indefinitely stranded, or finds his Pullman reservations summarily canceled, or finds passenger schedules temporarily disrupted and intercity buses completely swamped." For "those who must travel," the O. D. T. had this advice:

Check with the railroad company for the least crowded trains and times.

Don't count on return reservations being available.

Allow ample time to compensate for late trains and buses, missed connections, etc.

Be prepared to wait long hours in railroad and bus stations.

Be ready to stand in buses and in coach aisles. Carry your own lunch, or be ready for long waits for dining car service, or perhaps no dining car service.

Travel with the minimum of baggage; don't take anything you can't carry yourself; red caps may not always be available.

Too Much Even Last Year—The O. D. T. statement also recalled how last year's "flood of travelers taxed the nation's bus and railroad facilities to capacity, with occasional overflows on holiday week ends"; and O. D. T. fears that "the public's desire to travel will be even greater this year." Thus Colonel Johnson's warning that "if all the people who are planning to travel this year were actually to go, it would be impossible to handle the crush even with the present facilities." He added that "with the invasion in the offing, it may be stated categorically that any substantial increase in travel simply can't be handled."

Then came the O. D. T. director's expression of his hope that the country can carry on with the "self-imposed restrictions" which have thus far held off the imposition of travel priorities. He pointed out, however, that this can be done only "if everyone rigidly refrains from traveling unless the travel is urgently, vitally, and

essentially connected with the war effort." Later on the statement says that even though no priorities have been imposed, "the practice is growing for the transportation systems throughout the country to serve men and women in uniform first. The practice of letting them through the train gates and of letting them board buses first is becoming common."

Attention is also called to the fact that passenger facilities for some time have been so loaded that increases of two or three per cent in traffic have resulted in congestion. To handle such "jams," the railroads "have already found it necessary, at times, to limit the number of passengers let through the train gates, and bus companies have had to restrict the number of passengers."

Few Extra Services—Meanwhile, permits under O. D. T.'s passenger-train "freeze" order (General Order No. 24) for additional Summer services "will be limited generally to coach trains for operation only between Saturday and Sunday midnight," such trains using commuter equipment that would otherwise be idle. Requests for additional Pullman sleeping cars for Summer service "will be denied."

The actual running of extra trains, however, "irrespective of permits that have been issued," will depend upon "the demands of the armed services." It is pointed out that organized troop movements already absorb more than half of all Pullman cars and more than a third of all day coaches. Another third of the day coaches and much of the intercity bus space are taken up by furlough travel and travel of individual service men on orders, O. D. T. also estimates. With travel facilities available for civilians thus shrunk, "essential travel has increased steadily since the outbreak of the war, and travel on the whole has trebled since 1941."

F. B. Dow Becomes Assistant Director of O. D. T.

Fayette B. Dow has been appointed assistant director of the Office of Defense Transportation in charge of liquid transport, Director Johnson announced last week. Mr. Dow has been in charge of petroleum transport for O. D. T. since its organization—first as assistant to the late Director Eastman, and then as director of the Division of Petroleum and Other Liquid Transport.

Journal Bearing Materials

Supplementing Bulletin 4, issued on February 22, 1943, by the A. A. R. Committee on Journal Bearing Development, a new Bulletin No. 5 has just been released covering the further work of this committee in investigating the possibility of savings in strategic materials by changes in the design and composition of journal bearings. The conclusions, based on carefully conducted tests and specified procedures, are given by the committee in the following:

(1) Any of the bearings tested, having lead-base lining materials, regardless of design or composition, perform satisfactorily, as long as they are running on the lining.

(2) Considering the journal-box assembly as a whole, i. e., the axle, lined bearing,

wedge and box, major changes in composition and construction of the bearing can be made without materially affecting the dissipation of the frictional heat generated within the assembly.

(3) The performance of an aluminum-alloy insert in a composite bearing indicates the advisability of further investigation of materials which have heretofore not been considered as bearing metals.

Expect Mounting Sleeping-Car Cancellations, McCarthy Warns

Without straying into what he called an "unfamiliar role of military commentator," Henry J. McCarthy, assistant director of the Office of Defense Transportation, told the New England Shippers Advisory Board, in Portland, Me., April 27, that, with the returning movement of war wounded from Atlantic ports to hospitals and homes, last-minute cancellations of entire carloads of sleeping car accommodations may occur at any time. "There simply will not be sufficient sleeping cars available to the civilian traveler to meet the potential demands of the tourist traffic—or the vacationer," Mr. McCarthy pointed out.

"Here in Maine, and along the entire Atlantic Seaboard there are going to be extremely tight passenger facilities—especially for sleeping car accommodations," he

warned some 300 shippers and receivers of freight, gathered with railroad and highway transportation officials at the Perfect Shipping Week meeting of Maine and New Hampshire Shippers Boards. Reminding them of the "shameful spectacle that occurred in the Florida travel season this last winter," a recurrence of which is hoped to be avoided, the O. D. T. official stated that along this seaboard "there can be no guarantee that any visitor will be able to secure return reservations or make the return trip, except upon the carriers' ability."

Mr. McCarthy expects "domestic transport repercussions" when our "military forces are on the verge of their great effort." These, he believes, will be felt especially along the Atlantic Coast and in New England, although he observed that thus far New England carriers have never been threatened by an overburden of freight traffic.

Paying tribute to those groups who thoughtfully have cancelled conventions because of the travel situation, Mr. McCarthy reported that tourists generally will have a more difficult time this year than last, adding that "sound and long-range interest upon the part of your resort industry should establish that fact, and secure the advance understanding of the travelers that return reservations will be difficult, subject to delay, and last-minute cancellation."

"Selfish-unthinking, war-removed people are making general travel of the more necessary travelers more difficult than an aroused public conscience should permit," the speaker noted, expressing doubt that individuals are asking to a sufficient degree the question "Is My Trip Necessary?"

Discussing the rail freight picture, Mr. McCarthy remarked that "past and present contributions to transportation have been large and have been the result of resourcefulness by shipper and carrier with only an occasional intrusion of governmental authority." He is confident that such voluntary co-operation has resulted in "a greater contribution by carriers and shippers than would have resulted from a more authoritative and mandatory approach."

More Conventions Cancelled

The Advertising Federation of America, the American Institute of Architects, the International Photo-Engravers Union of North America, the National Lime Association, the Associated Master Barbers and Beauticians of America, the California Association of Life Underwriters, and the Pennsylvania Retailers Association have informed the Office of Defense Transportation that conventions scheduled for this year have been cancelled. These are in addition to cancellations of national, regional and state conventions which have previously been announced, the O. D. T. pointed out in an April 28 press release.

Colpitts Leaves O. D. T.; Rail and Truck Conservation Split

Charles B. Colpitts, eastern-southern director of rail-truck conservation in the Office of Defense Transportation, has resigned in order to return to the firm of Coverdale & Colpitts, consulting engineers, of New York. The announcement revealed

Army Railroaders in Persia Decorated by U. S. S. R.

Eleven Transportation Corps officers, several former railroadmen, received decorations when Joseph Stalin, president, Union of Soviet Socialist Republics, conferred awards recently on 33 officers and enlisted men of the United States Army, it was announced by the War Department, April 26. The awards were made, it was said, "for the successful performance of the mission of the Persian Gulf Command in the movement of arms, equipment and food supplies for the Soviet Union, thus affording great assistance to the Red Army in its struggle with the Nazi German invaders."

Transportation officers received the following citations: *Order of Kutuzov, Third Class*: Col. Edward F. Brown (New York City); Col. Paul F. Yount (Alliance, O.); *Order of the Fatherland's War, First Class*: Lt. Col. Walter D. Brennan (Seattle, Wash.); Lt. Col. Aubrey M. Bruce (Former Master Mech., Ill. Term. R. R., Alton, Ill.); Lt. Col. John J. Clutz (Former Div. Engr., P. R. R., Silver Spring, Md.); Maj. Emery C. Creager (Long Beach, Calif.); Lt. Col. Oscar E. Cole (Former Master Mech., Houston Belt & Term., Houston, Tex.); *Order of the Fatherland's War, Second Class*—Maj. James H. Gildea (Asst. Supt., U. P., Laramie, Wyo.); Maj. Worthington C. Smith (Missoula, Mont.); Maj. Gerald Sadler (Percilla, Tex.); *Order of the Red Star*: Capt. Richard P. Drennan (Washington, D. C.).

that the rail and truck conservation work heretofore carried out by the section Mr. Colpitts headed will be separated, the conservation of rail transportation remaining in the Division of Railway Transport and the conservation of truck transportation going to the Division of Motor Transport.

The announcement also recalled how Mr. Colpitts came to O. D. T. in 1842 "to work out a comprehensive program of rail-truck coordination." While such a program "has been held in abeyance pending the efforts to get the railroads and the motor carriers to agree on a feasible plan," Mr. Colpitts' section proceeded with its conservation work, "particularly the establishment of direct merchandise car lines to expedite the movement of l.c.l. freight, and to eliminate transfer handlings."

C. N. R. War Veteran, Disabled, Resumes His Civilian Job

This is the story of Major Raoul Audet, Canadian war veteran of World War II. Bereft of both hands by the premature explosion of a grenade, he was returned from Europe in 1943. Recently, upon recommendation of the Canadian National's rehabilitation committee, Major Audet was appointed station agent at Levis, Quebec, where he now operates a telegraph key with competence and facility.

It is his wish that attention be called to his case, that others who may come back similarly disabled will not be discouraged by their adversity.

Prior to the war, Major Audet had been in the employ of the C. N. R. as an operator and relief agent, serving variously, from 1919, at Lake St. John, Malbaie, Edmundston and St. Eustache. In September, 1939, he joined up with the Chaudiere Regiment, and following experience overseas, returned to Canada to take charge of Valcartier Camp. In 1943, he again proceeded overseas, and while there suffered the accident which caused the loss of both his hands. When his condition permitted, Major Audet undertook educational and

vocational courses. Later he was fitted with artificial hands. He has so mastered their use as to perform many manual functions—and, in addition to operating the telegraph, he can handle a typewriter as well.

Levis, on the south shore of the St. Lawrence, and opposite Quebec City, is an important operating point on the lines of the C. N. R. to Halifax.

Railroads Agree to Further Stay of Ex Parte 148 Raise

Railroads have consented to the suspension of the increased freight rates authorized in Ex Parte 148 for a further period of six months beyond July 1. They so advised the Interstate Commerce Commission in their reply this week to the commission's recent order directing them to show cause why the suspension should not be so extended.

At the same time, J. J. Pelley, president of the Association of American Railroads, issued a statement suggesting that a continuation of the current downward trend of earnings may make it necessary for the carriers to apply for increased rates prior to January 1, 1945. He added that the action of Congress on the pending Boren bill to repeal remaining provisions of the land-grant-rate law "will materially affect future decisions as to the general level of rates necessary to maintain efficient and adequate railroad service."

Land Grant Repealer Would Help— This is because under the present land-grant-rate set-up the railroads have to consider "special uncertainties as to the future level of rates on the vast government traffic on which reduced charges are now made on account of land grants." In their formal reply to the show-cause order, the railroads stipulated that their consent to the suspension "shall not be taken as precluding or prejudicing any application which they may find it necessary or desirable to make to the commission seeking

an increase in their general rate level prior to January 1, 1945, either by reinstatement of the increases now under suspension herein, or otherwise."

Giving specific figures on the recent trend of earnings, Mr. Pelley had this to say: "Because of increases in wage rates and in the prices of materials and supplies, operating expenses of the railroads in 1944 are running some 535 million dollars a year higher than in 1943. Of this increase, approximately 135 million dollars is due to increased prices, and 400 million dollars to higher wages and payroll taxes. As a result of these rising operating expenses, together with higher tax rates, railroad net earnings began to decline in June, 1943, shortly after the increased rates were suspended, and have been going down ever since."

As noted in the *Railway Age* of April 17, 1943, page 783, the suspension now proposed to be extended applies to the freight-rate increases authorized in the spring of 1942, which were estimated to amount to an average increase of about 4.75 per cent. The increases were in effect a little over a year, the original suspension being effective May 15, 1943.

Raps Proposal to Make Travelers Sign Declarations

Sharp comment on the adverse side came last week from Representative Plumley, Republican of Vermont, when he learned that the Office of Defense Transportation is considering a plan which would require travelers to sign declarations to the effect that their trips are necessary. As noted in the *Railway Age* of April 29, page 820, O. D. T. Director Johnson revealed that such a plan was among several proposals under consideration.

Representative Plumley called the plan "perfectly impractical and unenforceable," adding that it is "on a par with some others emanating heretofore from other government agencies—one, that farmers remove the shoes from their horses at night; two, that the mules furnished tenant farmers be with foal. That domestic animal, like the suggestion itself, can have no pride of ancestry or hope of posterity."

"To suggest that those who cannot speak, read, or write English shall be compelled to sign such a declaration is not only an attempt to accomplish the impossible, but is ridiculous, indefensible, and absurd. The long-suffering public need not be insulted."

The New York World-Telegram, a Scripps-Howard newspaper, also criticized the proposal quite sharply in an editorial.

Victory Gardens, a la B. & O.

The Baltimore & Ohio again is encouraging its employees to plant victory gardens. Fertile land along the right-of-way, for which the railroad had no immediate use, last year provided hundreds of small plots. Applications already received would indicate even more employees will participate in this year's planting.

The B. & O., offering further aid to gardeners through its agricultural development department, is distributing free to interested employees a practical book on how to grow gardens.



Major Audet Signs for a War Bond, in the Presence of J. A. Trudel, Superintendent of the Levis Division

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since April 13, and which are of interest to railroads:

Brass Mill Products—Beginning May 15, no person shall place orders that aggregate more than 500 lb. gross weight for delivery from warehouse stock of any item of brass mill product to any one destination during any calendar week. This new limitation applies to all items of brass mill products except single continuous lengths of rod, tube, pipe, sheet, and strip. Neither the new 500 lb. weekly limitation nor the former 2,000 lb. monthly limitation, which is retained in the order, applies to condenser tubes or to resale of brass mill products obtained by a brass mill warehouse through an authorization issued by a regional office of WPB.

Busways—To improve the performance and to reduce man-hours of labor required for fabrication of busways the WPB, on April 26, lifted restrictions on the use of aluminum and zinc in nuts, bolts, washers, and name and identification plates and permitted aluminum, but not zinc, finishing or plating of cases. Prior to this action, covered by an amendment to L-273, these busway components were made of plain steel. The amendment also permits unlimited manufacture of busways not exceeding 100 ft. in length, for repair, extension or rearrangement of existing systems.

Lumber Order L-335 Clarified—Questions raised in complying with the lumber order initiating an over-all control of lumber are answered in Interpretation 1 to Order L-335. The interpretation, in the form of 32 questions and answers, includes the following general items: what is the purpose of the order; who is required to report lumber requirements on WPB Form 3640 on or before April 25; what lumber use should be included in the report; how should a company operating several plants make its report; what lumber is to be included in the report and what lumber products are not to be included.

The interpretation points out that wood generally passes through the lumber stage somewhere in the various processes by which a log is converted into a finished product. The point at which Order L-335 exercises control is after wood has reached the lumber stage and before it has been converted into a fabricated item or has been partly fabricated to the extent that it cannot be used as general purpose lumber.

Machine Tools—For the purpose of obtaining up-to-date statistics on the demand for machine tools and the available capacity remaining for machine tool production, the Tools division of the WPB is conducting a survey of the percentage of machine tool building capacity devoted to other war work. The last previous survey of this kind was conducted in August 1943.

Malleable Iron Castings—Inventory restrictions on malleable iron castings have been modified by an amendment of M-21-i. An exception to the previous limitation to an over-all 45-day supply provides that a receiver may now accept up to 2,000 lb. of castings of any one pattern or mold or a minimum production run, as explained in Interpretation 7 of PR-1, even if receipt of the shipment raises his inventory above a 45-day supply. Authority to accept the latter is contingent upon the impracticability of obtaining the smaller quantities that the customer actually needs at the time.

Padlocks—An amended version of Schedule I of the hardware simplification order, L-236 removes restrictions on the use of zinc in padlocks and permits the manufacture of certain sizes formerly prohibited. The demand for padlocks is much in excess of present production and the industry has an average backlog of eight months.

Registers and Grilles—Registers and grilles for warm air heating systems are in short supply and a newly-organized industry committee agreed that a limitation order is needed to provide for production on the basis of stated requirements from claimant agencies. Under the present production set-up, no requirements are established. Production of registers is permitted under the Iron and Steel Order, M-126, but only Bessemer or top cut steel can be used and production is

confined to labor areas 3 and 4. Grille production is prohibited under Order M-126 except for those made for use on shipboard which has meant that, in some instances, registers are being installed where grilles, which use less metal, would suffice.

Shellac—Order M-106, under which shellac has been allocated since April 14, 1942, was revoked effective April 26. The quota of alcohol available to shellac producers recently was reduced from 100 to 50 per cent of their base period use by an amendment to Order M-30.

Sprocket Chains and Wheels—A 45-day inventory limit has been placed on sprocket chains, attachment links and sprocket chain wheels that may be required by any one and deliveries made by manufacturers are subject to the same restrictions, by an amendment to L-193.

Typewriters—Sales and deliveries of new typewriters in dealers' stocks and all used typewriters have been freed from WPB restrictions. This action was taken in connection with the recent revocation by the OPA of its rationing order; OPA, by delegation of authority from WPB, controlled distribution of such typewriters. Previous restrictions of WPB's typewriter order, L-54-a, placed the distribution of all typewriters under the control of WPB but delegated authority to OPA to ration new typewriters in dealers' stocks and all used typewriters. OPA's rationing order was revoked as of April 22, and WPB's action was also made effective on that same date. Sale and delivery of all new typewriters in manufacturers' hands are still controlled by WPB.

Welding Equipment—Having acquired records indicating the location of most of the used, idle resistance welding equipment available for resale, an amendment to Limitation Order L-298 revokes the requirement that owners report their stocks to WPB.

Prices

Ball Cocks—Sellers of copper ball cocks for plumbing fixtures produced following an amendment to Schedule V of Order L-42 effective April 4, will use the same ceiling price to each class of customer that was in effect when these items were last manufactured in mid-summer of 1942. Manufacturers' prices for these plumbing articles were first established under the GMPR, and later retained under MPR 188. Other sellers' ceiling prices are established under the GMPR. Both these regulations use March 1942 as a base period.

Bituminous Coal—Ceilings on bituminous coal produced in northern West Virginia and shipped by railroad were revised by amendment 95 to MPR-120, effective April 24. The general changes which include both increases and decreases, average out, for the district as a whole, to an increased return to producers of less than three cents per net ton. In addition, varying increases have been granted to certain producers in Preston county, to achieve more uniform pricing and to enable producers to obtain a return approximating cost of production. The mines in the county which do not receive any of these additional increases are those which previously had been granted an increase which raised them above the level of the new schedule.

District-wide revisions represent another step in the general overhauling of bituminous coal producers' ceilings that has been under way for some time. It is the sixth district revision to be announced, and it reduces the size groupings from ten to five; railroad fuel and all commercial shipments by rail are combined in one schedule, and price relationships are improved as between different sizes of coal. The commercial mine run price ceilings have been reduced five cents per ton, most slack ceilings have been increased five cents per ton, and adjustments have been made, in ceilings for small double-screened coals in several price classifications.

Douglas Fir—The increasingly heavy demand of war agencies for Douglas fir boards and dimension lumber—cut in thicknesses up to two inches led the OPA to increase existing price ceilings on several grades and to reduce ceilings on planks and timbers to stimulate greater production. Amendment-7 to RMPR-26 (Douglas Fir

and Other West Coast Lumber) effective April 18, which provides for these changes, is made effective for only 90 days, with a provision that it may be continued if the need for boards and dimension remains urgent and the mills demonstrate an ability to increase their production to meet requirements. Cost experience acquired during this period will determine whether revision of these prices will be necessary. At present, little data are available on the costs involved in shifting production from planks and timbers to board and dimension lumber.

Changes effected by this action also are reflected in Amendment-4 to Second RMPR-215 (Distribution Yard Sales of Softwood), effective May 3, which deletes a provision from the regulation covering distribution yard sales of softwood that permitted the yards to compute their selling prices on the basis of the original size plus costs of resawing or remanufacturing performed by them.

Because of the urgent need for boards and dimension, it was considered desirable to permit yards to make this addition so that they would use their remanufacturing facilities. However, the increased price differential provided by the other amendment between timbers and boards and dimension lumber, amounting to approximately \$6 per M.b.m., is considered adequate to cover costs of similar operations performed by the distribution yard. Deletion of the original provision places distribution yards strictly on an end product pricing basis.

The following increases are provided in the amendment to the Douglas fir amendment:

(1) Select Merchantable, No. 1 and No. 2 boards, \$4.50 per M. b. m.; No. 3 and No. 4 boards, \$6.50. (2) The differential between green and dry boards, increased \$1 on No. 2 and higher grades; (3) Select Structural, No. 1 and No. 2 dimension, \$1 (This increase is smaller because of the larger sizes and because the demand is not so acute as for boards. Hemlock dimension lumber is increased \$2 to the same price as fir. During the present emergency both species can be used interchangeably in dimension, and equalization of the price will simplify the sale and shipment of mixed lots of hemlock and Douglas fir.) The prices of Select Structural, No. 1 and No. 2, plank and small timbers (2, 3, 4 and 6 in.) are reduced \$1 and the prices of heavy timbers are reduced \$2.

Iron and Steel Products—Changes in its definition of warehousing of iron or steel products were announced by the OPA April 22, so that sales entitled to the warehouse price level could be more easily distinguished from sales of these products at the mill producer level, in amendment-22 to RPS-49 (Resale of Iron and Steel Products), effective April 27.

Vitrified Sewer Pipe—An increase, effective April 26, not to exceed 10 per cent in present manufacturers', distributors', and dealers' prices for sales of vitrified clay sewer pipe and allied products produced in the Eastern area is provided in amendments No. 2 to MPR-206, No. 32 to MPR-108, and No. 122 to RSR-14 to the general maximum price regulation. The Eastern area includes the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, Ohio, lower peninsula of Michigan, and that part of Kentucky described as follows: all points in Campbell and Kenton Counties and points located on the Chesapeake and Ohio Railway from Covington to Catlettsburg, inclusive, and all points on the Big Sandy Division of the Chesapeake and Ohio Railway.

Western Softwoods—Supplementary Services Regulation No. 27 under MPR-165, effective May 3, provides specific dollars-and-cents maximum prices for milling and kiln drying of Western softwoods by custom mills. Formerly, each operator could obtain the highest price he charged during March 1942. The new price scale is based on an average of the highest prices prevailing in March 1942 and allows for the costs of both large and small operators. The new ceilings, for the first cut in resawing or ripping, range from \$7.50 per M. b. m. on 1-in. by 2-in. to \$2 per M. b. m. on wide dimension and large timbers. Those for each additional cut or line range from \$2 on narrow boards to 50 cents on timbers of 6-in. by 8-in. and larger, and are based on the charges of those new mills which based their prices on actual costs rather than on the maximum prices of small competitors.

GENERAL NEWS

Will Look Into Radio Use by Railroads

F. C. C. orders inquiry into safety possibilities and other uses

The Federal Communications Commission on May 2 ordered an investigation and public hearings "to inquire into the feasibility of using radio as a safety measure and for other purposes in railroad operations." The announcement stated that F. C. C. has invited the Interstate Commerce Commission to cooperate in the investigation and has suggested that a committee of I. C. C. commissioners be named with a committee of F. C. C. commissioners to preside over the hearings, the date for which has not yet been set.

9 RR Radio Stations Authorized—At the same time, F. C. C. revealed that it has authorized construction permits for nine experimental radio stations to be used by the Baltimore & Ohio between Baltimore, Md., and Pittsburgh, Pa., and on the Chicago, Burlington & Quincy between Chicago and Denver, Colo., and "into Montana." Applications for these permits were among those seeking authority to construct 22 such experimental stations which have been received from railroads and radio manufacturing companies.

The other applicants are the Atlantic Coast Line; Atchison, Topeka & Santa Fe; Chicago, Rock Island & Pacific; Reading; Bendix Radio Division of the Bendix Aviation Corporation; Westinghouse Radio Stations, Inc.; and Jefferson-Travis Radio Manufacturing Corporation. The applications seek two-way radio communications between the dispatcher and trains in motion, between trains, and between the head-end and rear-end of each train. Also contemplated is the use of "walkie-talkies" for flagmen and brakemen.

Accidents Led to Action—The investigation, as the announcement put it, "is the outgrowth of widespread interest in radio for railroads as the result of recent accidents, notably the wreck of the Congressional Limited, September 6, and of the Tamiami Champion, December 16, 1943." Such interest is found to have been evinced "in numerous inquiries to the commission and to members of Congress and in general press comment following each major rail accident."

More specifically, reference is made to the letter written recently to F. C. C. Chairman Fly by Chairman Wheeler of the Senate committee on interstate commerce (see *Railway Age*, issues of February 26, page 435, and of March 18, page 567); and to

the interest of a Senate military affairs' subcommittee on war mobilization, headed by Senator Kilgore, Democrat of West Virginia (issue of February 19, page 400).

So far as is known to F. C. C. "there is no radio system in regular use on any commercial railway line in the United States." The announcement noted there, however, the pending applications, mentioned above, and went on to emphasize how they involve "two-way radio communications as distinguished from carrier-current systems which use low frequencies conducted through the rails or other metallic circuits adjacent to the right-of-way." The Pennsylvania's installation in New Jersey (see *Railway Age* of February 12, page 352) is cited as an example of the latter.

"Both the Radio Act of 1927 and the Communications Act of 1934 contemplated a development of railroad radio," the announcement concluded.

Snubber Application to Tank Cars

The A. A. R., Mechanical division, has tabulated replies to a questionnaire on the status of application of snubbers to truck spring clusters on privately owned tank cars and finds that, as of March 1, 1944, out of a total of 140,441 cars, owned by 395 companies, 100,292 cars, or 71.4 per cent are equipped and 2,509 were applied during the month of February. An analysis of the tabulation indicates that 159 companies, owning 9,559 cars, are 100 per cent equipped and, on the other extreme, 43 companies, owning 576 cars, have no program. One company, namely the City Service Oil Company, CSOX EORX, no longer authorizes railroads to apply spring snubbers to their cars.

Kendall Calling Western Grain Cars Home

Outlining crop and storage conditions which mean "that the Western grain loading roads will be called upon this season to supply a much larger number of box cars during harvest than has been necessary the past several years," W. C. Kendall, chairman of the Car Service Division, has established the usual annual quota system effective May 1 to expedite the return home of Western grain cars on Eastern and Southeastern lines.

In outlining the situation, Mr. Kendall stated that the Western roads will require the return from the East and South of a minimum of 18,000 box cars by July 1. His circular calls for the issuance by the individual roads of car-handling instructions which will meet these requirements. Meanwhile, he advises Western roads to exercise "particular care to avoid any unnecessary loading away from home of Western cars."

Land-Grant Repealer Reported to House

Enactment of Boren bill is recommended by interstate commerce committee

Adopting the recommendation of its subcommittee headed by Representative Boren, Democrat of Oklahoma, the committee on interstate and foreign commerce this week filed in the House a report calling for enactment of the amended version of H.R. 4184, the land-grant-rate repealer sponsored by Mr. Boren. The two subcommittee amendments accepted by the full committee were those noted in the *Railway Age* of April 1, page 644—one to postpone the effective date of repeal for 90 days after the bill's enactment date, and the other to stipulate that, in the exercise of its power to prescribe just and reasonable rates, the Interstate Commerce Commission "shall give due consideration to the increased revenues which carriers will receive as a result of the enactment of this act."

A Complete Repealer—Otherwise the bill is a complete repealer, proposing to finish the job started by the partial repealer embodied in Transportation Act of 1940, which left the land-grant-rate deductions applicable on "the transportation of military or naval property of the United States moving for military or naval use and not for civil use," and on "the transportation of members of the military or naval forces of the United States (or the property of such members) when such members are traveling on official duty."

As the committee's report points out, however, the bill would remove only one (but the "compulsory" one) of the four existing provisions of law whereby the government may obtain railroad transportation at charges lower than the tariff rates paid by private shippers and travelers. In other words there would remain that provision of the Transportation Act of 1940 whereby the railroads are permitted to enter into contracts with the government for the transportation of mail at rates lower than those fixed by the I. C. C.; also, section 1(7) of the Interstate Commerce Act whereby free transportation is permitted to certain persons, including "jettitude and homeless persons, disabled veterans, and others"; and section 22 under which the transportation of property or persons free or at reduced rates is permitted for the federal government.

RRs Raise Land Values—The report next reviews briefly the history of land grant legislation, proceeding then to a discussion of "the equities of the situation."

(Continued on page 876)

Nat'l Safety Council Makes Its Awards

Norfolk & Western winner in
Group A—R. V. Fletcher
addresses session

Eight railroads and a zone and a shop of the Pullman Company were presented with awards as winners of the Railroad Employees' National Safety Contest of the National Safety Council at a dinner at Chicago on May 1. The winners and their casualty rates are as follows:

Standard Railroads		Total Casualty Rate
Group	Railroad	
A	Norfolk & Western	4.86
B	Reading	7.11
C	Western Maryland	5.63
D	Pennsylvania Reading Seashore Lines	5.64
E	Charleston & Western Carolina....	1.36
F	Gulf & Ship Island	6.94
The Pullman Company		
G	Chicago Central Zone	3.17
H	Atlanta Shop00
Switching and Terminal Lines		
A	Ogden Union Ry. & Depot Co....	3.66
B	Minnesota Transfer	5.84

In reporting on the contest, it was pointed out that as a result of the efforts to guard the safety of employees, 46 employee lives were saved on the six railroads receiving awards in groups A to F inclusive, on the basis of the fatality rate of 0.48 per million man hours in 1923. Furthermore, if the average 1943 fatality rate of 0.10 of these six roads had prevailed on all of the railroads, there would have been 585 less employees killed in 1943.

The awards were accepted for the railroads and the Pullman Company by the following representatives: S. F. Small, vice-president of the Norfolk & Western; S. L. Witman, superintendent of safety of the Reading; J. R. Tenney, superintendent of safety of the Western Maryland; Harry Babcock, general manager of the Pennsylvania-Reading Seashore; L. S. Jeffords, general superintendent of the Charleston & Western Carolina; W. E. Davis, superintendent of the Gulf & Ship Island; Champ Carry, executive vice-president of the Pullman Company; R. E. Edens, superintendent of the Ogden Union Railway & Depot Company; and C. S. Christoffer, vice-president and general manager of the Minnesota Transfer.

Prior to the presentation of the awards, Mr. Fletcher reviewed the record of the railroads in the war effort, contrasting their present performance with that in World War I. "There is one thing which seems to be settled and perhaps settled for all times," he said. "This war has conclusively demonstrated the superiority of private over public ownership and control. It is true, of course, that a certain amount of control was exercised by the Office of Defense Transportation, particularly in the earlier stages of the war. However, under Mr. Eastman's wise management, the O. D. T. was a helpful aid to transportation, rather than a hindering and blundering obstacle. Too much praise cannot be given to Mr. Eastman and his successor, as

well as to the Interstate Commerce Commission, for the policies which they have pursued in being helpful rather than the contrary. I think it can be said with some degree of certainty that it will be a long time before we hear any serious talk about public ownership.

"Indeed, in the latter part of 1943, when there was a threat of interruption of traffic due to the labor controversy between the leaders of organized labor and certain agencies of the government, and in the estimation of the President it became necessary to take control of the railroads for a limited period, fortunately for all concerned the control was vested in the Secretary of War and the generals of the Army. These wise and experienced officers had no desire to operate the railroads. Such a policy was pursued, therefore, as resulted in the return of the railroads to their owners after 22 days, or as soon as the labor controversy had been adjusted.

"The whole interesting story of railroad performance is a conclusive demonstration of the superiority of our method of handling transportation in comparison with the method used in Germany, where there have been many transportation difficulties, resulting in serious embarrassment to the German war effort."

Argument June 8 on Freight Forwarder Bills of Lading

The Interstate Commerce Commission has set June 8 as the date for oral argument before the full commission in the No. 28990 investigation with respect to bills of lading of freight-forwarders. The proposed report of Examiners David P. Copenhaver and T. Leo Haden was reviewed in the *Railway Age* of March 4, page 476.

Proposes Tax Relief Measure for Reorganized Railroads

Representative Knutson, Republican of Minnesota, has introduced H.R. 4701 to amend section 113 (a) (20) of the Internal Revenue Code "by providing that the acquiring corporation and the railroad corporation or corporations whose property was acquired shall be deemed to be the same taxpayer." The effect of the proposed legislation would be to give a reorganized railroad company the benefit of any right which its predecessor had to carry forward excess profits tax credits and operating or other losses.

Ask I. C. C. Order in Intrastate Fare Cases

Advising the Interstate Commerce Commission that the state regulatory bodies concerned had not taken advantage of the 30-day period allowed in its report for action to comply with its findings approving increases of intrastate passenger fares in No. 28900 and related proceedings, the railroads serving Kentucky, Alabama and North Carolina have requested the commission to enter an appropriate order to put its findings into effect as to those states. The commission's report, as outlined in *Railway Age* of April 15, page 741, required that such fares be brought into line with interstate fares in the same territory.

J. Jones Challenges Boatner's Motives

On eve of C. & E. I. inquiry he
charges speculation in
the road's stock

In advance of a hearing before a Senate interstate commerce subcommittee of which he is chairman, which was scheduled to take up the matter on May 5, Senator Johnson, Democrat of Colorado, on May 2 inserted in the Congressional Record a letter from Jesse H. Jones, Secretary of Commerce, setting forth his views with respect to the allegations of Victor V. Boatner that the Reconstruction Finance Corporation had interfered with the management policies of the Chicago & Eastern Illinois. Mr. Boatner's assertions, and the reply thereto of C. T. O'Neal, president of the C. & E. I., were reported in *Railway Age* of April 22, page 790.

Senator Johnson made no comment to the Senate on the content of the letter, which he placed in the Record at Mr. Jones' request, beyond explaining that it dealt with "the attempted manipulation of the stock of the Chicago & Eastern Illinois Railroad by a party by the name of Boatner."

A "Red Herring"—The letter advised Mr. Johnson that "it may not be possible" for Secretary Jones to attend the hearing, but offered any pertinent facts. It went on to say of Mr. Boatner that "Some of his statements are false. His publicity campaign and his appeal to Senator Wheeler (for an investigation of the "alleged improper influence" of the R. F. C. on the C. & E. I. management) seem intended to draw a red herring across his own trail in trying to get control of the C. & E. I. I think it is well known that Mr. Boatner has been making large profits buying and selling securities of this road while serving on the board of directors.

"He called to see me early in 1942," the Secretary's letter continued, "and told me that he and some associates . . . had bought a large amount of the common stock of this road from the Chesapeake & Ohio Railroad Co., something over 67,000 shares at \$1.06 a share, and that he wanted to be elected to the presidency of the road. He solicited my support. He also stated that they had bought some of the preferred stock. In other words, for a comparatively small amount of money he and his associates were endeavoring to get control of the road, and Mr. Boatner its presidency at a fat salary."

R. F. C. "Principal Credit Source"—Later, Mr. Jones continued, Mr. Boatner, who had secured the election to the road's board of directors of several members of his group, "was urging that a dividend of \$1 a share be paid on the common stock. This was approximately the cost to them of much of their stock." The board did not do this, but a dividend of 50 cents per share was declared later, and several dividends have been paid on the preferred, (Continued on page 875)

3 Months Income Was \$146,500,000

Net railway operating income
for the first quarter was
\$262,610,155

Class I railroads in the first three months of this year had an estimated net income, after interest and rentals, of \$146,500,000, as compared with \$209,449,720 in the first three months of 1943, according to the Bureau of Railway Economics of the Association of American Railroads. The three-months net railway operating income, before interest and rentals, was \$262,610,155, compared with \$341,145,341 in the corresponding 1943 period.

March's estimated net income was \$53,100,000, compared with \$84,651,085 in March, 1943; while the net railway operating income for that month was \$92,503,963, compared with March, 1943's \$129,652,003. March was the tenth consecutive month in which the net earnings of the carriers showed a decline, the A. A. R. statement pointed out.

Rate of Return Is Down—In the 12 months ended with March, the rate of return averaged 4.75 per cent compared with 6.02 per cent for the 12 months ended with March, 1943.

Operating revenues for March totaled \$797,029,214 compared with \$756,195,714 in March, 1943, while operating expenses totaled \$527,433,356 compared with \$449,410,669. The three-months gross totaled \$2,273,006,410 compared with \$2,090,997,773 in the same period in 1943, an increase of 8.7 per cent. Operating expenses amounted to \$1,523,540,259 compared with \$1,282,021,989, an increase of 18.8 per cent.

Class I roads in the three months paid \$440,035,760 in taxes compared with \$422,044,571, in the same period in 1943. For March alone, the tax bill amounted to \$160,132,077, a decrease of \$1,643,619 or one per cent below March, 1943.

Twenty Class I roads failed to earn interest and rentals in the three months, of which 11 were in the Eastern district, one in the Southern region, and eight in the Western district.

Results by Regions—Class I roads in the Eastern district in the three months had an estimated net income of \$60,000,000 compared with \$77,136,821 in the same period of 1943. Their net railway operating income was \$109,007,798 compared with \$129,327,054.

Operating revenues in the Eastern district in the three months totaled \$999,283,734, an increase of 7.6 per cent compared with the same period in 1943, while operating expenses totaled \$713,315,889, an increase of 16.8 per cent.

March's estimated net income in the Eastern District was \$23,000,000 compared with \$31,274,597 in March, 1943. Net railway operating income for the month amounted to \$39,562,465 compared with \$48,907,365.

Class I roads in the Southern region in the three months had an estimated net

income of \$30,000,000 compared with \$41,320,654 in the same period of 1943. Their net railway operating income was \$45,631,905 compared with \$58,256,046.

Gross in the Southern region in the three months totaled \$335,434,169, an increase of 4.7 per cent compared with the same period of 1943, while operating expenses totaled \$203,785,660, an increase of 15.2 per cent.

The Southern region's estimated net income for March was \$10,000,000 compared with \$15,416,520 in March, 1943. The month's net railway operating income amounted to \$15,664,330 compared with \$21,457,850.

Class I roads in the Western district in the three months had an estimated net income of \$56,500,000 compared with \$90,992,245 in the same period of 1943. Their net railway operating income was \$107,970,452 compared with \$153,562,241.

Operating revenues in the Western district in the three months totaled \$938,288,507, an increase of 11.5 per cent compared with the same period in 1943, while operating expenses totaled \$606,438,710, an increase of 22.7 per cent.

March's estimated net income in the Western District was \$20,100,000 compared with \$37,959,968 in March, 1943. Net railway operating income for the month amounted to \$37,277,168 compared with \$59,286,788.

CLASS I RAILROADS—UNITED STATES Month of March

	1944	1943
Total operating revenues	\$797,029,214	\$756,195,714
Total operating expenses	527,433,356	449,410,669
Operating ratio—		
per cent	66.17	59.43
Taxes	160,132,077	161,775,696
Net railway operating income (Earnings before charges) ..	92,503,963	129,652,003
Net income, after charges (estimated)	53,100,000	84,651,085
Three Months Ended March 30, 1944		
Total operating revenues	\$2,273,006,410	\$2,090,997,773
Total operating expenses	1,523,540,259	1,282,021,989
Operating ratio—		
per cent	67.03	61.31
Taxes	440,035,760	422,044,571
Net railway operating income (Earnings before charges) ..	262,610,155	341,145,341
Net income, after charges (estimated)	146,500,000	209,449,720

Geared Hand Brakes

Following the adoption of specifications for geared hand brakes by letter ballot in 1942, the various manufacturers of geared hand brakes were invited to submit their brakes for test and make application for certificate of approval. As of April 24, the A. A. R. Mechanical division reports that applications have been received, satisfactory tests conducted and certificates of approval awarded by the Committee on Geared Hand Brakes to the following manufacturers: Ajax Hand Brake Company, Dwg. 14038; Champion Brake Corporation, Dwg. 1148 and 1124; Klasing Hand Brake Company, Dwg. D-959; W. H. Miner, Inc., Pattern D-3290-X; Superior Hand Brake Company, Dwg. 566; Union Asbestos & Rubber Co. (Equipment Specialties Division), Dwg. 3450-A; Universal Railway Devices Company, Dwg. 4885, 5550 and 5700. This supersedes the list appearing in an A. A. R. circular letter dated February 18, 1944.

Rail Abandonment Procedures Argued

State commissions say I.C.C.'s
standard is private profit,
not public convenience

As hearings on S.1489—a bill introduced by Senator Reed, Republican of Kansas, "to establish additional standards and to declare the policy of the Congress with respect to the abandonment of railroad lines"—got under way on May 2, it became evident that the general purpose of the proposed legislation met with the approval of a majority of the state public service and utility commissions, and with the emphatic disapproval of Division 4 of the Interstate Commerce Commission, to which the disposition of abandonment applications ordinarily is assigned.

The hearings were scheduled to continue on May 3 and 4, to afford an opportunity for the expression of the views of shippers, labor unions, and the railroads, as well as those of the regulatory bodies. Senator Reed presided at the hearings on May 2 in the absence of the other members of the subcommittee of the Senate committee on interstate commerce, Senators Johnson of Colorado, chairman, and Clark of Idaho, Democrats.

Making It Hard to Quit—As outlined in *Railway Age* of November 6, 1943, page 737, the bill undertakes to define the policy of Congress, with respect to railway abandonments, as opposing approval of such actions "unless and until it shall conclusively appear that the efficiency of the national transportation system will be increased thereby." The provisions of section 1(19) of the Interstate Commerce Act would be amended, under the terms of the bill, to require the commission, before approving an abandonment application, to find that the line involved was efficiently operated; that expenses had been reduced to a minimum, including any obtainable abatements of local taxes; that efforts to obtain increased revenues from rate increases had been exhausted; that the line could not continue to operate without loss; and, finally, that the net loss from such operation would impair the carrier's service or infringe on its constitutional rights, as interpreted by the Supreme Court.

In response to an invitation from the chairman of the Senate committee, Senator Wheeler, Democrat of Montana, the legislative committee of the commission, the chairman of which is Commissioner Splawn, on April 13 wrote an expression of its comments on the bill, inclosing also the more comprehensive remarks of Division 4 thereon.

The legislative committee confined its analysis of the bill principally to certain details of procedure, where it took the general position that the commission already had authority, at its discretion, to do what it would thus be empowered to do, but it did comment more broadly on that part of the declaratory section of the bill which would require the commission to precede approval of an abandonment with the finding that "the efficiency of the na-

ional transportation system will be increased thereby."

Might Prohibit All Abandonments—

This language, said the committee, "is rather broad and general. If strictly applied, it might forbid any abandonment whatsoever. If not strictly applied, it might have no effect. It could be limited to the efficiency of the applicant railroad or of the operating system which includes the applicant rail carrier. If applied to a system, mere stub lines to exhausted mines or an abandoned project might be exempted from this prohibition. Congress no doubt has the power, subject to constitutional limitations, to require a railway system to operate its properties and not to abandon services on any part of the system."

Division 4, made up of Commissioners Porter, Mahaffie and Miller, reviewed the proposed legislation in some detail, and came to the conclusion that it should not be enacted, because to do so would

"Prolong and increase the expense of abandonment proceedings. It would put unnecessary and burdensome obstacles in the way, and render more difficult than the present procedure the disposition of meritorious abandonment applications. At the same time, it seems to us to fail to propose practicable means of insuring the continuation in service of lines and operations needed in the public interest in any cases in which that interest is not now fully protected."

Abandonments Serve Public Interest

—To the statement that about one-tenth of the total rail mileage in the country has been abandoned within the past few years, which is included in the first section of the proposed statute, the division remarked that, in the first 22 years since the Transportation Act of 1920 made its jurisdiction over abandonments effective, "there has been a decline of only about 2 per cent in the miles of road operated" by Class I carriers. If the bill's first section is intended to mean that "the final effect of all abandonments that have occurred has, on the whole, been detrimental to the public interest," the division said, "we respectfully dissent." The railroads' unprecedented wartime performance would have been impossible, it asserted, "if there had been any serious shrinkage or impairment of the railroad plant." The fact is, the division went on to say, that "elimination of unwanted, wasteful, and unnecessary facilities and services, we believe, has furthered the efficiency of the national transportation system in the service of the people of the country as a whole."

As to the proposed requirement that authority to abandon must be predicated upon a showing that the efficiency of the national transportation system will be increased thereby, the division's view was that it often would be "next to impossible" to do this, in view of the relative insignificance of the line involved. "Public convenience and necessity afford a more satisfactory basis for determination of most abandonment applications," it added.

The National vs. Local Interest—In many abandonment proceedings there inevitably is a "conflict between the interest of the public in general in the promotion and preservation of a strong, economically and efficiently operated national transportation system and the interest of individuals and local communities in furthering their immediate welfare and convenience," the division pointed out in conclusion. Here,

it said, there must be a fair balancing of the opposing claims. The bill, however, it declared, "evinces a special concern for the shippers and the communities being deprived of railroad service. It appears to overlook the important consideration that through abandonment of unwanted, unneeded, and uneconomical lines and operations the general welfare is promoted, the efficiency of the national transportation system is improved, and the railroad industry in its entirety as an instrumentality of the public service is fostered and protected. Such considerations have appeared to be the sound bases for national policy."

The views of 33 state corporation and public utility commissions in support of the purposes of Senator Reed's bill were set forth at some length by John E. Benton, general solicitor of the National Association of Railroad and Utilities Commissioners, the first witness to appear before the subcommittee. He spoke for the regulatory bodies of the following states: Alabama, California, Connecticut, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Louisiana, Maryland, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Oklahoma, South Dakota, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Kentucky, Mississippi, North Carolina, and Oregon. Several of these commissions were represented also by other witnesses, who developed the points of view of the individual organizations at greater length, while the Public Service Commission of New York, not represented by Mr. Benton, expressed its support of the principles of the proposed legislation through a statement by its chairman, M. R. Maltbie.

I. C. C. "Indifferent"—The burden of Mr. Benton's testimony was his contention, with which Senator Reed expressed his agreement, that the Interstate Commerce Commission had assumed "an attitude of entire indifference" to the welfare of the public dependent upon lines involved in abandonment proceedings, with the result, he said, that the "fact of loss is taken as determinative" in approving such applications.

Since full jurisdiction over abandonments was given the commission in 1920, said the witness, it had approved the abandonment of 11.8 per cent of the mileage in existence then. In the first 10-year period since 1920 the average mileage abandoned per year, according to the figures he submitted, was 792; in the second 10-year period the average was 1,574 miles per year; while in the past 3 years, a period of greatly increased railway earnings, the average was 2,043 miles abandoned per year. Mr. Benton did not doubt that the lines abandoned were not profitable, and he agreed that it was undoubtedly to the financial advantage of their owners to abandon them. It was his view, however, that the railroads, while privately owned, are dedicated to the public use, so that the public may insist that they continue operating portions of their systems whether or not such operation is profitable to the owners. There is no inherent right to abandon unprofitable parts of railway systems, he asserted, but such abandonments may be allowed "as an act of

grace on the part of the sovereign." Only where an entire system is shown to be unprofitable, he contended, do the owner's constitutional rights entitle him to authority to dismantle and salvage the line.

This basis of reasoning, as well as the trend toward greater annual mileage abandoned, led the witness to suggest that legislation to require pooling of certain railway revenues would be desirable, so that private railroad operation may continue at not too great expense to the public. Here Senator Reed interposed the remark that a bill to give the I. C. C. authority to require the pooling of revenues from general rate increase, S. 236, which he introduced early in the present session of Congress, was being allowed to "lie dormant" during the present period of "flush earnings." When the situation becomes normal, the measure probably will be pressed, he indicated, even though he expects it to be opposed by the stronger railroads.

Write-Offs for Taxes—Mr. Benton went on to advert to the belief entertained in some quarters that high carrier earnings operate in some instances to accelerate abandonments because companies subject to federal excess profits taxes may reduce their taxable incomes by charging off accounting losses resulting from the abandonment of "fragments" of their systems which either are unprofitable or yield very little profit. The tax laws provide a "golden opportunity" for railroads to get back a large part of the cost of construction of lines that are no longer profitable, he declared, since they allow the deduction from taxable income of the difference between the investment in a line and its salvage value, and in some cases the rate of taxation may be as high as 95 per cent.

The commission, said this spokesman for the state regulatory bodies, has assumed an attitude of indifference to efforts of the railroads to take advantage of this opportunity, and he quoted from the recent report of the commission's majority in an abandonment proceeding involving certain lines of the Atchison, Topeka & Santa Fe in Kansas, Senator Reed's state, its view that "no stigma attaches because a railroad uses all lawful means to lighten its tax burden" to support his contention that the commission looks "with complacency" upon abandonments in which the possible tax saving may be considered an important factor. (The attitude of the majority and the dissenting commissioners to the differing contentions advanced in this proceeding were outlined in *Railway Age* of April 29, page 838.)

Local Interests Deemed Paramount

—The commission's standard in acting upon abandonment applications is whether or not the operation involved is profitable to the road, suggested Mr. Benton. No abandonment should be permitted where shippers protest, he declared, unless the record shows continued operation of the line will impose an undue burden on the general public or impair the carrier's ability to operate. The purpose of Congress in giving the commission jurisdiction over abandonments, he went on to say, was not to benefit carriers that may seek to get rid of unprofitable portions of their lines, but to

SOUTHERN PACIFIC COMPANY

ANNUAL REPORT TO THE STOCKHOLDERS FOR YEAR ENDED

DECEMBER 31, 1943

President's Remarks

In 1943, as in 1942, the movement of men and materials vital to the war effort had first call on the transportation facilities of the Company and its affiliated carriers. The primary efforts of the entire personnel were devoted to this task.

For the second successive year, the volume of both freight and passenger traffic far exceeded all previous records. The traffic load for nearly every day in 1943 was greater than the traffic of peak days in peacetime years. Net ton-miles of revenue freight carried by the Southern Pacific Transportation System were more than two and one-half times the volume of 1939, the last year before defense production affected rail transportation. Passenger-miles were more than three and one-half times those of 1941, the last year before the great wartime increase in railroad passenger travel began.

Gross operating revenues for 1943 reached an all-time peak. The amount of revenues consumed by wages, taxes and other expenses, however, was so great that the consolidated net income of the properties, amounting to \$67,100,000, was less than the record net income for 1942 by approximately \$18,300,000, or 21.4%.

Credit is due to the 100,000 men and women employed by System and affiliated companies in the achievement of new transportation records, accomplished despite a shortage in manpower of 10,000 throughout 1943 and continuing into 1944. More than 14,500 former employees are in the armed forces, with many deaths already recorded on gold star honor lists.

Every available means has been used to overcome the manpower handicap, including employment of about 4,000 women in non-clerical capacities to do work formerly performed exclusively by men. Some 7,000 Mexicans were imported to help meet Southern Pacific track and shop labor shortage.

Rolling stock was at peak demand, requiring the most intense utilization of locomotives and cars in the Company's history.

In meeting the problems of 1943 the Company was materially aided by the practical and sustained cooperation of shippers, all branches of military service, the Office of Defense Transportation, the Interstate Commerce Commission and State Railroad Commissions, and the Regional Transportation Advisory Boards. The activity of the press in explaining to the public the wartime problems of the railroads was heartening and helpful.

Improvements to the properties, including Centralized Traffic Control installations and rolling stock purchases, largely to meet military transportation requirements, continued through 1943. During that year the Transportation System and separately operated Solely Controlled Affiliated Companies operating in the United States expended \$22,394,513 (excluding non-cash items) for additions to their several properties, including \$4,759,582 from the proceeds of equipment obligations; expended \$50,213,534 in the retirement of funded debt and increased by \$15,000,000 the holdings of obligations of U. S. Treasury in addition to the increased holdings of U. S. Treasury Notes held in temporary cash investments and referred to elsewhere in this report. The foregoing expenditures for retirement of debt do not include the sum set aside for the retirement of the Ten-Year 3¾% Secured Bonds, called for redemption January 1, 1944, referred to elsewhere in this report.

As one of the basic industries associated with the upbuilding of the West and Southwest, the Company, while making every effort to handle the wartime traffic load successfully, is planning to continue its forward course in the postwar period by progressing transportation services to which there was a public responsiveness at the time of their inauguration before the war, and by such further improvements as may be made possible and practicable by wartime developments in science and industry.

Income

Southern Pacific Transportation System (Southern Pacific Company and Transportation System Companies, Consolidated) and Separately Operated Solely Controlled Affiliated Companies (Excluding Southern Pacific Railroad Company of Mexico)—Year 1943 Compared with Year 1942.

SOUTHERN PACIFIC TRANSPORTATION SYSTEM:	Year 1943	+Increase -Decrease	Per Cent
Freight revenues	\$427,564,121.28	+	\$60,639,864.45
Passenger revenues	124,246,592.25	+	52,011,485.96
Mail and express revenues ..	17,376,577.51	+	3,662,089.96
All other operating revenues ..	28,180,128.19	+	8,305,163.35
Total railway operating revenues	\$597,367,419.23	+	\$124,618,603.72
Maintenance of way and structures	\$76,377,367.16	+	\$36,506,522.16
Maintenance of equipment ..	90,684,992.26	+	22,701,034.36
Traffic expenses	8,233,257.51	+	1,414,334.19
Transportation expenses	166,806,675.95	+	29,809,114.69
All other operating expenses ..	27,107,267.75	+	6,155,881.96
Total railway operating expenses	\$369,209,560.63	+	\$96,586,887.36
Net revenue from railway operations	\$228,157,858.60	+	\$28,031,716.36
Railway tax accruals	126,719,349.97	+	49,874,354.66
Equipment and joint facility rents—Net	24,195,691.61	+	3,416,354.33
Net railway operating income	\$77,242,817.02	-	\$25,258,992.63
Income from lease of road and equipment, and miscellaneous rent income	\$1,274,087.89	-	\$22,476.28
Dividend income, excluding all inter-company dividends ..	3,158,729.75	-	126,488.75
Income from funded securities	463,338.10	+	156,570.38
Other income accounts	4,178,071.29	+	1,917,021.92
Total other income	\$9,074,227.03	+	\$1,924,627.27
Total income	\$86,317,044.05	-	\$23,334,365.36
Miscellaneous deductions	806,110.50	+	151,098.73
Income available for fixed charges	\$85,510,933.55	-	\$23,485,464.09
Interest on debt	\$27,030,729.79	-	\$1,594,035.93
Other fixed charges	85,930.02	+	29,995.02
Total fixed charges	\$27,116,659.81	-	\$1,564,040.91
Income after fixed charges	\$58,394,273.74	-	\$21,921,423.18
Contingent charges	34,453.11	+	1,611.88
Net income of Southern Pacific Transportation System	\$58,359,820.63	-	\$21,923,035.06
SEPARATELY OPERATED SOLELY CONTROLLED AFFILIATED COMPANIES:			
Operating in the United States—Net income excluding interest on bonds of separately operated Solely Controlled Affiliated Companies owned by Southern Pacific Company not included in its income	8,243,231.70	+	3,351,133.29
Operating in the Republic of Mexico (excluding Southern Pacific Railroad Company of Mexico)—Net income ..	530,134.85	+	263,694.64
CONSOLIDATED NET INCOME	\$67,133,187.18	-	\$18,308,207.13

Southern Pacific Transportation System

Revenues. The increase of 26.4% in operating revenues reflects mainly, the great increase in movement of materials for war industries, munitions and foodstuffs for the armed forces; troop movements; and travel by military and naval personnel and their families.

Manufactures led other commodity groups in the fluctuations in freight revenues, as shown by the following tabulation:

	1943	+Increase -Decrease	Per Cent
Products of Agriculture	\$77,154,301	+	\$10,133,050
Animals and Products	11,121,524	+	729,436
Products of Mine	30,184,372	+	2,240,136
Product of Forests	41,213,595	-	6,139,805
Manufactures and Miscellaneous ..	253,062,264	+	53,618,682
Total Carload	\$412,736,056	+	\$60,581,499
Less-than-carload	14,828,065	+	58,365
Total	\$427,564,121	+	\$60,639,864

On May 15, 1943, the Interstate Commerce Commission suspended until December 31, 1943, the general increases in freight

rates and accessorial charges which had been made effective, under Commission authority, in March, 1942. In October, 1943, after further proceedings before the Commission, suspension of the increases was extended until June 30, 1944. About \$12,000,000 of additional revenues would have been earned by Southern Pacific Transportation System in 1943, had the increases in rates and charges continued in effect throughout the year.

The general level of passenger fares was unchanged. Passenger trains were never before so heavily loaded, and the problems of providing meal service for passengers, with a limited amount of equipment available, was further complicated by shortage of trained personnel and food rationing. Despite these difficulties, 11,700,000 meals and several million box lunches were served on passenger trains, compared with 3,500,000 meals served in the peacetime year of 1939.

Expenses. Considerably more maintenance work was required and other operating expenses increased due to the much heavier volume of traffic. The intense need for rolling stock made it necessary to keep in repair and continue in service many units of old equipment which normally should have been retired. Shortage of labor and higher density of traffic required a larger amount of overtime work. Flood damage was experienced in several localities in early months of the year, causing added expense and some interruptions of traffic for short periods.

Approximately 436 track-miles of new rail, principally 113-lb. and 132-lb. weight per yard, and 412 track-miles of relayer rail of various weights were laid in repairs and renewals; compared with 429 track-miles of new rail and 286 track-miles of relayer rail laid in 1942.

The average number of employes of the Transportation System was 83,082, an increase of 5,892, or 7.6%. Payroll costs comprised \$222,735,872 of total operating expenses, an increase of \$51,725,154, or 30.2%, including \$14,761,000 paid, or accrued for back-pay allowances, under the wage-increase awards which are explained elsewhere in this report.

Taxes. Railway tax accruals, far greater than ever before, took 55.5 cents of each dollar of net revenue from railway operations for 1943, and were equivalent to \$33.59 a share of the outstanding capital stock of Southern Pacific Company. The accruals by classes of taxes were as follows:

	Accruals	Increase
Federal unemployment insurance taxes	\$6,801,507	\$1,488,206
Federal retirement (pension) taxes	7,364,166	2,052,384
Federal taxes on income and excess profits	95,852,628	43,525,698
Other Federal and miscellaneous taxes	2,807,673	372,976
State, County, and City taxes	13,893,376	2,435,091
Total	\$126,719,350	\$49,874,355

The increase in tax accruals, compared with 1942, is principally due to accruals for excess profits taxes, as the result of having larger taxable income and lower excess profits tax exemption credit applicable to 1943, whereas no accrual of excess profits taxes was made in 1942; increased accruals for Federal unemployment insurance and retirement taxes, which are based on employee compensation, due to the larger amount of payrolls and an increase of one-quarter of one per cent in the Federal retirement tax rate effective January 1, 1943; and accruals for an increased amount of California State Corporation taxes.

The holdings of U. S. Treasury Notes, Series C, were increased during the year to an amount approximating the estimated liability for Federal taxes on income for 1943.

Rents. Net charges for equipment and joint facility rents increased, principally due to increase in receipts and use of foreign freight cars on Southern Pacific Lines, and greater movement of perishables in outside private line refrigerator cars and of petroleum and its products in tank cars, compared with 1942, partly offset by decreased perishable loadings of Pacific Fruit Express cars.

Other Income. The net increase in income from sources other than railway operations was principally due to \$1,087,284 increase in charges against Pacific Fruit Express Company for privileges granted to that company; an increase of \$867,364 in interest income mainly from U. S. Treasury Notes and Certificates of Indebtedness purchased in respect of Federal tax liability and for other corporate purposes; and an increase of \$233,511 in dividend income from companies other than Pacific Fruit Express; these increases being partly offset by a decrease of \$360,000 in dividend income from Pacific Fruit Express Company; also by an increase

of \$151,099 in miscellaneous deductions from incomes, due principally to greater deficit of jointly controlled properties.

Fixed Charges. The decrease in interest on debt reflects in part the further reduction in funded debt elsewhere referred to in this report, partly offset by issuance of Series U Equipment Trust on January 1, 1943.

Traffic Statistics—Southern Pacific Transportation System

	Year 1943 Compared with Year 1942		Per Cent
	Year 1943	+Increase -Decrease	
Average miles of road operated during year	12,645.53	- 211.30	1.64
Freight train-miles	41,793,212	+ 2,408,457	6.12
Tons carried—Revenue freight	96,644,571	+ 10,935,346	12.76
Net ton-miles—Revenue freight	40,049,635,349	+ 4,647,749,927	13.13
Loaded cars per freight train	35.82	+ 1.08	3.11
Net tons per freight train—All freight	1,018.15	+ 62.29	6.52
Freight revenue per net ton-mile—Revenue freight	1.068 cents	+ .032 cents	3.09
Average distance carried—Revenue freight (miles)	414.40	+ 1.35	.33
Passenger train-miles	23,789,455	+ 2,196,232	10.17
Passengers carried—Revenue	23,346,029	+ 6,462,377	38.28
Passenger-miles—Revenue	7,349,345,169	+ 3,070,242,308	71.75
Passengers per passenger train—Revenue passengers	311.71	+ 111.89	56.00
Passenger revenue per passenger-mile	1.691 cents	+ .003 cents	.18
Average distance carried—Revenue passengers (miles)	314.80	+ 61.35	24.21

Separately Operated Solely Controlled Affiliated Companies

Net income of separately operated Solely Controlled Affiliated Companies operating in the United States, shown in the Income Account, excludes interest totaling \$2,333,115 accrued by Pacific Electric and Northwestern Pacific on bonds of those companies owned by your Company but not included in its income. Such net income for 1943 of \$8,243,232 compares with a net income of \$4,892,099, on the same basis, for 1942. The amount of increase, \$3,351,133, is largely due to fluctuation in net results of the following two companies:

(1) Pacific Electric Railway Company: Net income of this company for 1943 was \$5,602,315 as against \$1,546,807 for 1942, an improvement of \$4,055,508 resulting, mainly, from substantial increases in operating revenues derived from a much larger volume of traffic. The results for both years are after charges against income of \$1,087,650 and \$1,103,444, respectively, for interest accrued on Pacific Electric bonds owned by your Company.

(2) Northwestern Pacific Railroad Company: Net deficit of this company for 1943 amounted to \$780,526 compared with net deficit of \$315,432 for 1942, the increased loss of \$465,094 resulting, principally, from increases in maintenance expenditures and train service costs which more than offset an increase in operating revenues from a larger volume of traffic. The results for both years are after charges against income of \$1,245,465 for interest accrued on Northwestern Pacific bonds owned by your Company.

Combined net income of the Solely Controlled Companies operating in Mexico (excluding Southern Pacific Railroad Company of Mexico) was \$530,135 as against \$266,440 for 1942; the gain of \$263,695 resulting, mainly, from increases in freight earnings of the railroads.

Southern Pacific Railroad Company of Mexico had a net income of \$1,085,095, compared with \$520,906 for 1942, an increase of \$564,189 principally due to larger traffic volume and revenues resulting from the general improvement in business conditions in Mexico, with the war emergency a contributing factor. The income results for both 1943 and 1942 include charges of about \$619,000 for amortization of investment in property which is subject eventually to reversion to the Mexican Government.

Investment in Transportation Property

The increase during the year in investment in transportation property of Southern Pacific Transportation System amounted to \$16,917,014, as follows:

Expenditures for road extensions	\$764
Expenditures for additions and betterments:	
Road property	\$9,780,294
Rolling stock	13,657,723
Floating equipment	3,449
Miscellaneous equipment	176,444
Total expenditures	\$23,618,674

(Table continued on top of next page)

(Table continued from bottom of previous page)

Less:		
Road property retired	\$5,082,061	
Rolling stock retired	1,298,795	
Miscellaneous equipment retired	10,696	
Miscellaneous adjustments	310,108	6,701,660
Net increase		\$16,917,014

The total expenditures of \$23,618,074 for road extensions and additions and betterments during 1943 compared with expenditures aggregating \$53,945,408 for such purposes in 1942. The decrease of \$30,326,734 is principally due to the larger amount of rolling stock purchased in 1942, and inclusion in 1942 accounts of the cost of the line change between Redding and Delta, California.

Road Property. Approximately 728 track-miles of the rail laid in renewals during the year replaced rail of lighter weight. Approximately 29 track-miles of new sidings and siding extensions, and 46 track-miles of new yard tracks and extensions were completed, and other such jobs were in progress at close of the year.

An installation of Centralized Traffic Control between Bena and Tehachapi, California, commenced last year, was completed and put in service in 1943, over a distance of 32.3 miles. Installation of about 70 miles of Centralized Traffic Control between Colton and Indio, California, was begun in the fall of 1943 and 37.4 miles of the system had been placed in service at the close of the year; and work was commenced in November on another such installation of about 43 miles between Vista and Massie, Nevada.

Other projects which were completed included new passenger stations at San Luis Obispo, and Camp Roberts, California, a combination freight and passenger station at Thorne, Nevada; and an addition to the surgery at the Company's general hospital, San Francisco. Four tunnels between Mojave and Saugus, California, having an aggregate length of 1,062 feet were converted to open cuts, permitting improvement of the alinement of main track. Additional facilities for supplying water to locomotives were provided; and a number of bridges were strengthened and improved. A new locomotive erecting shop at Sparks, Nevada, was approaching completion at the year end.

Rolling Stock. Progress, during 1943, on the program for new rolling stock is shown by the following tabulation:

	Steam Locomotives	Diesel-electric Switchers	Freight-train Cars
Enroute from builders' plants at close of 1942	3	—	5
On order January 1, 1943	31	30	856
Orders cancelled	—	—	856
Orders placed	20	27	500
Placed in service	44	28	5
Enroute from builders' plants at close of year	3	—	—
On order December 31, 1943..	7	29	500

Units of new rolling stock placed in service during 1943, consisted of 24 articulated-consolidation locomotives, 4 general service locomotives, and 1 diesel-electric switcher, covered by Equipment Trusts; and 10 articulated-consolidation locomotives, 6 general service locomotives, 27 diesel-electric switchers, and 5 steel gondola cars, purchased with treasury funds.

As the result of limitation of box car construction by the War Production Board, unfilled orders placed in June, 1941, for 856 box cars, were cancelled early in 1943 by agreement with the car builders.

The 1943 order for 20 articulated-consolidation locomotives was completed in February, 1944. Deliveries are in progress on orders for 29 diesel-electric switchers, and are expected to be completed within the year. Deliveries on orders for 500 gondola cars are scheduled through April and May, 1944.

Profit and Loss Account of Southern Pacific Transportation System

(Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Items)

DEBITS	Year 1943
Income appropriated for sinking fund reserves	\$50,000.00
Dividend appropriations of surplus	7,545,556.00
Other debits	988,493.12
Credit balance at end of the year	447,498,900.44
Total	\$456,082,949.56
CREDITS	Year 1943
Credit balance at beginning of the year	\$391,406,757.95
Net income as reported in the income account	58,359,820.63
Other credits	6,316,370.98
Total	\$456,082,949.56

To help meet the intensified demand for rolling stock, 4 second-hand freight locomotives were purchased, and a number of special types of passenger and freight cars were reconstructed or refitted for uses for which there was greater need. Many improvements to other owned equipment were made, although such work was necessarily restricted because of shortage of shopmen and preference being given to maintenance work.

Balance Sheet of Southern Pacific Transportation System

(Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Items)

The assets reported below are stated on the basis of the classifications prescribed by the Interstate Commerce Commission. No attempt has been made to adjust book values of assets to current estimated values. However, the balances in reserves for depreciation and amortization have been applied as deductions from book value of investments.

	December 31, 1943	+ Increase — Decrease Compared with 1942
ASSETS		
INVESTMENTS		
Transportation property	\$1,502,127,279.42	+ \$16,917,013.73
Donations and grants—Credit	20,955,868.52	— 56,662.89
Miscellaneous physical property	25,268,887.60	+ 1,049,516.21
Sinking funds	800,056.56	+ 23,650.00
Affiliated companies—Securities and investment advances	266,302,524.76	— 4,827,434.83
Other investments	26,681,430.88	+ 9,070,193.60
Total investments	\$1,800,224,310.70	+ \$20,077,243.40
Deduct:		
Reserve for adjustment of investment in securities	\$137,423,066.37	— \$43,670.47
Reserves for accrued depreciation and amortization	191,540,773.69	+ 24,410,204.48
Total deductions	\$328,963,840.06	+ 24,366,534.01
Net investments	\$1,471,260,470.64	— \$4,289,290.61
CURRENT ASSETS		
Cash	\$55,738,357.72	+ \$5,527,507.21
Temporary cash investments (U. S. Treasury Notes and Certificates) ..	95,850,553.95	+ 45,320,553.95
Accounts receivable	97,871,422.16	+ 26,871,776.25
Material and supplies	26,824,250.24	+ 733,948.60
Other current assets	34,859,036.89	+ 31,102,748.87
Total current assets	\$311,143,620.96	+ \$109,556,534.88
DEFERRED ASSETS AND UNADJUSTED DEBITS		
.....	\$41,791,442.37	+ \$12,664,521.79
Grand total	\$1,824,195,533.97	+ \$117,931,766.06

LIABILITIES		
CAPITAL STOCK HELD BY THE PUBLIC		
Southern Pacific Company (3,772,763.0564 shares, no par value) ..	\$383,581,150.64	—
Transportation System Companies ..	1,200.00	— \$200.00
Total stock	\$383,582,350.64	— \$200.00
LONG TERM DEBT		
Funded debt unmatured:		
Held by the public	\$579,813,102.29	— \$42,593,647.90
Held by Solely Controlled Affiliated Companies	5,142,000.00	—
Held in sinking funds by Transportation System Companies	770,000.00	+ 26,000.00
Total funded debt unmatured	\$585,725,102.29	— \$42,567,647.90
Equipment obligations	\$58,999,748.32	— \$2,817,499.29
Amounts payable to affiliated companies—Open accounts	12,950,815.03	+ 820,376.49
Total long term debt	\$657,675,665.64	— \$44,564,770.70
CURRENT LIABILITIES		
Accounts and wages payable	\$77,624,076.84	+ \$44,432,021.48
Interest matured unpaid	4,745,700.22	+ 1,214,566.02
Interest payable January 1st	3,638,501.25	— 395,700.00
Unmatured interest accrued	5,436,463.87	— 203,339.15
Accrued tax liability	110,690,119.03	+ 49,322,990.87
Other current liabilities	17,701,751.84	+ 11,594,809.59
Total current liabilities	\$219,836,613.05	+ \$105,965,348.81
DEFERRED LIABILITIES AND UNADJUSTED CREDITS		
.....	\$43,091,531.17	+ \$2,646,854.52
CONSOLIDATED ADJUSTMENT		
Excess of inter-company liabilities over assets eliminated	\$67,084,627.22	— \$2,291,158.89
SURPLUS		
Appropriated surplus	\$5,425,845.81	+ \$83,549.83
Profit and loss—Balance	447,498,900.44	+ 56,092,142.49
Total surplus	\$452,924,746.25	+ \$56,175,692.32
Grand total	\$1,824,195,533.97	+ \$117,931,766.06

* For comparative purposes, 1942 figures have been restated to conform to changes in I. C. C. classification effective January 1, 1943.

Retirements. Retirements of road property which was not replaced included 82.6 road-miles of branch lines abandoned under authority of the Interstate Commerce Commission, and approximately 64.9 miles of sidings and spurs which were no longer required at various locations on operated lines. Retirement of these facilities released a large amount of usable materials and scrap steel for which there was a steady demand.

Only 234 units of rolling stock were retired in 1943, consisting of 4 passenger-train cars, 198 freight-train cars, and 32 company service cars, which were worn out or in some cases damaged beyond repair.

Financial

Funded Debt and Equipment Obligations. The net decrease during the year of \$45,411,147, in the principal amount of funded debt and equipment obligations of Southern Pacific Transportation System Companies, held by the public, consisted of the following:

FUNDED DEBT AND EQUIPMENT OBLIGATIONS RETIRED OR ACQUIRED

Southern Pacific Company Ten-Year 3 3/4% Secured Bond (exclusive of bonds called for redemption January 1, 1944)	\$13,562,000
Southern Pacific Company 4% (Central Pacific Stock Collateral) Gold Bonds	11,439,000
Central Pacific Railway Company First Refunding Mortgage 4% Gold Bonds	5,938,500
Central Pacific Railway Company 4% Thirty-five Year European Loan Bonds of 1911	3,191,313
San Antonio & Aransas Pass Railway First Mortgage 4% Gold Bonds	7,070,000
Texas & New Orleans Railroad Company Consolidated Mortgage 5% Gold Bonds	1,180,000
Equipment obligations	6,767,499
Other funded debt	212,835
Total retired or acquired	\$49,361,147

EQUIPMENT OBLIGATIONS ISSUED

Southern Pacific Company 2%—2 1/4% Equipment Trust Certificates, Series U	3,950,000
Net decrease in funded debt and equipment obligations held by the public	\$45,411,147

Retirements, during year 1943 by separately operated Solely Controlled Affiliated Companies, of funded debt and equipment obligations in the hands of the public aggregated \$3,780,716.

In addition to the above debt reduction accomplished during 1943, your Company also made provision for the payment on January 1, 1944, of all the outstanding \$29,009,000 of Southern Pacific Company Ten-Year 3 3/4% Secured Bonds, due July 1, 1946, held by the public which were called for redemption on that date at 101 and accrued interest. The \$29,299,090 cash required for such redemption was deposited with the Trustee, and is included in Other Current Assets reported in the balance sheet.

Capital Stock. There was no change during the year in the number of shares of capital stock of Southern Pacific Company issued and outstanding. The number of stockholders at the end of the year was 39,976 compared with 41,351 at the end of 1942.

Dividends were declared during the year, on capital stock of Southern Pacific Company, as follows:

\$1.00 per share, payable September 24, 1943, to stockholders of record August 31, 1943	\$3,772,763
\$1.00 per share, payable December 22, 1943, to stockholders of record November 29, 1943	3,772,763
Total	\$7,545,526

General

Land Grant Deductions. Under the law, railroad freight charges for transportation of military or naval property of the United States moving for military or naval and not for civil use are subject to land grant deductions. Differences exist between the Government and the railroads as to what constitutes military and naval property and whether materials and supplies moving for use in construction of cargo vessels, for disposition under Lend-Lease Act and Defense Aid Act, or for use under the direction of the War Relocation Authority, are military or naval property being transported for military or naval use.

Southern Pacific Company and other railroads generally have billed the Government for the full commercial tariff rates on all such shipments. In most instances the full amounts billed have been paid by the Government prior to audit and subject to later adjustments, with the result that Southern Pacific Company and its affiliated railroads have accrued approximately \$12,250,000, representing their proportion of charges on Government shipments during 1941, 1942, and 1943, which are known to be in dispute. As a precaution against possible overstatement of earnings, this

amount has been withheld from revenue and credited to Unadjusted Credits and carried in suspense. However, the amount has been reported as taxable income in current tax returns and applicable taxes thereon have been included currently in railway tax accruals.

If it is decided that the disputed charges must be wholly or partly repaid, the amount repaid would be deductible from taxable income in the year of repayment when the tax rates may be lower than those of years in which taxes accrued. The total income tax on disputed charges up to December 31, 1943, was approximately \$8,250,000.

To minimize the accumulation of large sums of money as taxable income that may later have to be refunded with consequent possible adverse results from income tax standpoint, Southern Pacific Company and its affiliated railroads effective March 1, 1944, adopted practice of rendering separate bills under protest segregating disputed and undisputed charges; reserving the right to collect the full commercial tariff rates where held to be applicable.

Test suits are now pending and others will be instituted for the purpose of having the disputed questions adjudicated by the courts.

Wages. Reference was made in the 1942 report to disputes arising out of requests of employes for increases in wage rates. The disputes were in due course assigned to Emergency Boards for investigation and report to the President.

The increases recommended by the Boards and accepted by the railroads were declined by the employes and December 30 was designated as the date for beginning a general strike; whereupon the President, acting through the Secretary of War, took possession and control of the railroads on December 27, 1943.

As a result of further conferences, the disputes were disposed of by agreements under which the operating employes were given an increase of 4 cents an hour effective April 1, 1943, and an additional 5 cents an hour commencing December 27 in lieu of punitive rates for overtime worked in excess of 40 hours a week and expenses incurred when away from home terminals. These employes were also allowed vacations of one week a year with pay. The non-operating employes were given increases effective February 1, 1943, ranging from 10 cents an hour for the lower rated, to 4 cents an hour for the higher rated employes, and further increases from December 27 scaled from 1 cent to 5 cents an hour in lieu of punitive rates for overtime worked in excess of 40 hours a week.

The wage increases were duly approved by the appropriate governmental agencies; and the President relinquished possession and control of the railroads on January 18, 1944, without any resulting physical or financial change affecting your Company.

It is estimated these awards will add \$24,700,000 to annual pay roll expenses, based on pay roll costs for 1943 excluding the back pay applicable to that year.

St. Louis Southwestern Railway Company. In the matter of reorganization of St. Louis Southwestern Railway Company, referred to in previous annual reports, the United States District Court on February 9, 1944, approved, without change, the plan of reorganization as certified to it by the Interstate Commerce Commission. Appeals from the order of the District Court have been taken to the United States Circuit Court of Appeals by several of the parties to the proceeding, including Southern Pacific Company.

Changes in Directorate. Since the annual meeting of stockholders in 1943, the following changes in the directorate of the Company have occurred:

Mr. Jackson E. Reynolds retired from the Board on April 15, 1943, and on that date Mr. Landon K. Thorne was elected to fill the vacancy.

Mr. Charles E. Perkins, a member of the Board and of the Executive Committee, died on June 19, 1943.

Mr. W. F. Bull resigned from the Board on August 19, 1943. On the same date, Mr. Henry L. Corbett, a member of the Board, was elected to membership on the Executive Committee, and Mr. D. J. Russell, Vice President, and Mr. John G. Walsh, Vice President in Charge of Finances, were elected Directors; to fill the vacancies caused by the death of Mr. Perkins and the resignation of Mr. Bull.

By order of the Board of Directors,
A. T. MERCIER, President.

conserve the efficiency of the transportation system of the country.

This witness touched also upon one more contention of supporters of the bill, namely, that the present procedure of the commission in abandonment cases puts the burden of disproving the railroads' claims upon the public, that is, usually, on the localities concerned, with the result that "many" cases allegedly "go by default" because the expense and difficulty of contesting the carrier's case often is too great for the opposing parties to undertake. This point was developed further by the witnesses who immediately followed Mr. Benton, that is, W. R. McDonald, chairman of the Public Service Commission of Georgia, and Byron M. Gray, who appeared for the State Corporation Commission of Kansas.

Mr. McDonald suggested that the bill be amended to put the burden of proof that the abandonment would increase the efficiency of the national transportation system on the carrier, and that the state commission concerned with the individual case should be "put on the opposite side of the bench," rather than be put in the position of cooperating with the I. C. C. Mr. Gray thought the bill should be amended to require a revenue showing as to the total effect of the operation of the line involved, not only on the system of which it was a part, but on the national railway system, so bringing into the record the contention that showings of operating losses in the case of specific branches or parts of systems often do not properly reflect the value of such segments to the system as a whole.

The first witness to appear on the second day of the subcommittee's consideration of the bill was Dr. Maltbie. Speaking for the New York commission, he advanced the view that it is not the proper function of the I. C. C. to determine whether local convenience and necessity require that a line should be kept in operation. Where the lines which the carriers seek to abandon are branches or feeders whose existence is a primary concern only of the localities they serve, which is, he said, the situation in the great majority of abandonment proceedings, the state regulatory body, he thought, should have jurisdiction as to local convenience and necessity, and the I. C. C.'s function should be to conserve the carrier's ability to meet the demands of interstate commerce. A finding of convenience and necessity by the I. C. C. should not be sufficient grounds for approving an abandonment, he insisted.

Removes Tax on Government Freight and Passengers

By virtue of the authority vested in him by section 307(c) of the Revenue Act of 1943, the Acting Secretary of the Treasury on April 29 authorized exemptions from the taxes on amounts paid for freight and passenger transportation for "any payment for transportation of property to or from the government of the United States shipped on a United States government bill of lading," and "any payment for transportation of persons furnished to the United States upon a United States government transportation request."

As noted in the *Railway Age* of March

4, page 470, the act's transportation tax provisions contained a stipulation to the effect that charges on the federal government would no longer be exempt. In the absence of the present action by the Secretary of the Treasury, that provision would have become effective June 1.

North Western Opens Employee Training Classes

The Chicago & North Western has initiated two employee training programs for traffic and accounting department employees at Chicago, which are said to be the first introduced by a railroad in the Chicago area. These two training courses differ in procedure but have the same general purpose, namely to give new and transferred employees knowledge of how their individual work fits into the general scheme of railroad operation.

The traffic course is designed to explain the "why and wherefore" of various traffic procedures, and is being conducted under the direction of F. G. Fitz-Patrick, chief traffic officer of the North Western. It is divided into two sections, one for new employees in need of a course on fundamentals of traffic, and another for more experienced workers interested in advanced techniques. Among the subjects to be covered by the course by means of lectures, question sessions and "round table" discussions led by E. V. Hall, of the Central Freight Association, are included: (1) Rules of consolidated classifications, (2) rules of tariff publication, (3) various kinds of freight traffic and the functions of each, (4) history of the Interstate Commerce Commission, (5) history of rate committees, (6) transit rates, and (7) fundamentals of solicitation. The 12-week course will conclude with an inspection by the participants of the North Western's Proviso yard.

The training schedule for accounting department employees, which stresses the training of selected men to serve as supervisors in instructing others on tested job-training techniques, was inaugurated by C. H. Westbrook, comptroller of the North Western, and is under the direction of Dr. Christian A. Ruckmick, superintendent of training. The classes are being conducted

by two employees of the accounting department who were previously given a 40-hour course at a supervisor's institute of the "Training Within Industry" section of the War Manpower Commission. Each class is limited to 10 persons, each of whom, at the conclusion of the course, is expected to be capable of training others along the lines of the program.

The two training programs were started on March 15, and since that date 79 persons have attended the traffic course and 80 have attended the course for the accounting department. The success of the programs is indicated by the fact that a number of employees of other railroads have asked for and been granted permission to join the classes. Because of this widespread attention, consideration is being given to the organization of similar classes for other departments of the North Western.

U. P. Moves Chicago Offices

The Union Pacific, on May 1, moved its Chicago offices from 58 East Washington street to 9-11 South LaSalle street, just above its present city ticket office.

Burlington to Test Radio Communication

The feasibility and potentiality of modern radio communications in railroad operations will be subjected to exhaustive study in the Chicago area and elsewhere by the Chicago, Burlington & Quincy in collaboration with the Bendix Radio Division of the Bendix Aviation Corporation. Permits for the construction and operation of the necessary experimental radio stations were granted the Burlington on May 2 by the Federal Communications Commission.

According to H. H. Hasselbacher, general superintendent of telegraph of the Burlington, the first experiment will be with an amplitude-modulated system in the Chicago passenger and freight yards. Two-way communication between the yard office and switching locomotives as well as between the caboose and locomotive of moving trains will be subjected to exhaustive tests. Later if the experiments are encouraging tests will be made at other points on the Burlington between Chicago and Denver.



Photo Courtesy Chicago & North Western

A Typical Class of Supervisors in the New Training Program of the North Western Accounting Department. At These Classes Supervisors Receive Training as Potential Instructors of New Railway Employees, with Tested Methods of Job Instruction and Relationships

Colo., and between Lincoln, Neb., and Billings, Mont. The Bendix Corporation has obtained releases from the Army for the equipment necessary for the initial experiments and the Chicago installation will be made within the next few weeks.

Ralph Budd, president of the Burlington, in announcing the experiment stated that "The fruits of our experiments will be made available to all railroads interested and as soon as the broadcasting and receiving equipment is in operation, experts from other railroads will be invited to study the operations. We believe radio communication can be applied effectively to certain phases of railroad operation, especially in the light of wartime developments in radio; however, neither we nor the manufacturers of radio know its extent or limitations and through these tests we hope to find the answer."

High Water Still Interferes With Traffic Movement

As a result of continued rainfall throughout the Middle West, important rail lines were still out of service this week. As reported in the *Railway Age* of April 29, heavy rains, which started on April 22, washed out numerous lines in eastern Kansas and western Missouri and by April 26 the flood waters had interrupted traffic around St. Louis, Mo.

The Chicago, Burlington & Quincy lost several sections of its line between West Alton, Mo., and Orchard Farm on April 23, which it is estimated will require two weeks to restore. The Missouri Pacific line between St. Louis and Thebes, which is also used by the St. Louis Southwestern, was rendered unserviceable on April 27 and was still out on May 3. Much of the traffic of these lines, including oil to the East, was rerouted over the Chicago & Eastern Illinois, with the result that, between April 27 and May 2, this railroad handled, in addition to its own traffic, on its Thebes-Tamms lines, 1,879 cars for the Cotton Belt and 919 for the Missouri Pacific, while the return movement of empty cars for these roads averaged about 400 a day. Similarly, the Illinois Central handled 192 trains for flood-affected railroads in Southern Illinois in these five days. In addition the Dupont-Gale line of the Missouri Pacific was inundated on April 27 and on May 3 was still submerged from 18 in. to 5 ft. for a distance of 60 mi.

The Gulf, Mobile & Ohio line into St. Louis and the Ste. Genevieve-Cape Girardeau line of the St. Louis-San Francisco were rendered unusable on April 27 and were still out on May 3. Thirty-five miles of the Chicago, Rock Island & Pacific line between St. Albans, Mo., and St. Louis were covered with water on April 28 but this line was restored to service on May 4.

L. I. Public Address System an Aid to Travelers

A public address system, designed to eliminate passenger confusion when making transfers from one train to another, has been installed by the Long Island on the platforms of its important suburban passenger station at Jamaica, N. Y.

The system consists of 20 loud speakers, spaced at equal distances along the two

westbound platforms, and 18 on the two eastbound. These are connected with two control booths, where operators announce the track, platform and destinations of each train as it arrives in the station.

During rush hours, the control stations serve also as information booths. Announcers can easily supply last-minute information on train movements, as each booth is equipped with teletype machines



Loud Speaker Announcements Issuing from the Control Booths Can Be Distinctly and Immediately Heard by Passengers Anywhere Along the Platforms



Photographs courtesy Long Island R. R.

At the Microphone Is J. J. Adams, Who Attended a School of Radio Technique to Qualify for the Announcing Job

and telephone circuits connecting all terminals.

The central transfer point on the Long Island, Jamaica station handles more than 250,000 passengers daily.

U. S. Chamber Elects Directors by Mail Ballot

Fitzgerald Hall, president of the Nashville, Chattanooga & St. Louis, and Arthur M. Hill, president of the Atlantic Greyhound Corporation, are among 19 directors of the Chamber of Commerce of the United States recently elected by mail ballot. The balloting was conducted by mail because of the postponement of the Chamber's annual meeting, originally scheduled for New York for May 3 to 5.

Mr. Hall was reelected, while Mr. Hill is a new member of the board, succeeding G. D. Brooke, chairman of the board of the Virginian. There are 38 members of the board, but only half were elected at this time. Mr. Hall is now the only railroad executive among them.

C. N. R. Union-Management Shop Group Meets in Montreal

"Every car and locomotive entering a shop for repairs should be looked on as a unit of war equipment to be returned to service with the quickest possible despatch," R. C. Vaughan, chairman and president of the Canadian National, told supervisory officers and union representatives of the motive power and car equipment section, at the 18th annual meeting of the System's union-management co-operative movement, in Montreal, April 26.

Post-war conditions are being studied, Mr. Vaughan assured the group, with management doing all possible to anticipate and meet keen competition and other such problems that are expected to arise. He reminded the gathering that the C. N. R. had "beaten the gun by 18 years" in establishing co-operative committees.

Other speakers included N. B. Walton, executive vice-president; Joseph Corbett, president of Federation No. 11 and general chairman of the carmen; R. J. Tallon, com-

missioner, Unemployment Insurance Commission, Ottawa; R. L. Daly, director of the railway representing labor; Alistair Fraser, K. C., vice-president, traffic; S. W. Fairweather, vice-president, research and development, and F. W. Edge, director of labor relations. All stressed the co-operation between union and management, and agreed their "first problem was to win the war."

I. C. C. Service Orders

As a result of flood conditions in the valleys of the Mississippi, Ohio, and Missouri rivers and their tributaries which are interrupting the service of carriers in these areas, the Interstate Commerce Commission has issued its Service Order No. 204, effective April 28 until further order, directing affected railroads to forward by the most available routes traffic having origin in, or ordinarily moving through, such territory, without regard to shippers' routing, in cases where tracks are not usable on account of floods. As is usual in such cases of carrier disability, the rates applicable over the designated routes will be applicable, and divisions of such rates will be subject to voluntary agreement or, on failure thereof, will be fixed by the commission.

Service Order No. 203, effective April 27, also originated in flood conditions, and requires routing by the most available rail routes certain carload shipments of coal originally routed by barge lines from their connections at Alton, Ill., with the Illinois Terminal, and destined to points in Minnesota and Wisconsin.

Service Order No. 205 provides that, for carrier convenience, refrigerator cars loaded with fresh or green vegetables originating on the Southern Pacific in the Salinas-Watsonville district of California may be initially iced at Roseville, Calif., when bunker icing is permissible, rather than at Watsonville Junction, since ice must be shipped to that point from other places, thus "congesting traffic and wasting transportation." The order was effective May 1.

Effective May 2, the arrangement under which shipments of dry onions originating in 12 states have been controlled by a War Food Administration permit system, made effective as to rail shipments through Service Order No. 152, has been terminated. The order was set aside by Service Order No. 152-A, and the action was taking, according to an Office of Defense Transportation explanation, because primary distribution of the 1943 onion crop has been practically completed.

By Amendment No. 2 to Service Order No. 174, the commission has extended the provisions of that order, which were applicable to grain, grain products, and seeds covered by "order notify" or "advise" bills of lading, so that they apply also to similar shipments of hay. The amendment was effective May 6.

Service Order No. 188, applying demurrage regulations to intra-terminal movements of loaded refrigerator cars on the State Belt Railroad of California, has been further suspended to August 5 by Amendment No. 3 to the order, effective May 5. Certain service orders requiring railroads to unload specified carloads of materials the unloading of which had been unduly delayed have been set aside by "A" orders applying, respectively, to Service Orders Nos. 191, 194, 195, 196, and 198, all effective May 2 except the last named, which was effective April 28.

Would Build Beaver-Mahoning Canal

Senator Burton, Republican of Ohio, has introduced in the Senate a proposed amendment to the pending rivers and harbors bill, which would authorize the construction of the Ohio river-to-Struthers section of the proposed Beaver-Mahoning canal.

Southern Diesel Case Goes to Mediation in Washington

Intervening at the request of the railroads, the National Mediation Board this week opened mediation proceedings in Washington, D. C., on the dispute involving the refusal of Southeastern railroads to settle the so-called Diesel case on the same basis as the Eastern and Western settlements, i.e., by granting concessions in addition to those recommended in the May 21, 1943, report of a National Railway Labor Panel emergency board headed by Frank M. Swacker.

B. of L. F. & E. Threatens Strike—

The intervention of N. M. B. followed the breakdown of negotiations between the parties, who had been deadlocked in meetings extending over nearly six weeks. As announced in "Labor," organ of the railroad brotherhoods, the breakdown was followed by President D. B. Robertson's call of an April 28 Washington meeting of Brotherhood of Locomotive Firemen & Enginemen general chairmen "to take action on a strike vote." Any such action is now expected to be delayed while the case makes its way through Railway Labor Act procedures.

The award of the Swacker board, which the Southeastern carriers are ready to accept, was noted in the *Railway Age* of May 29, 1943, page 1092. But this was un-

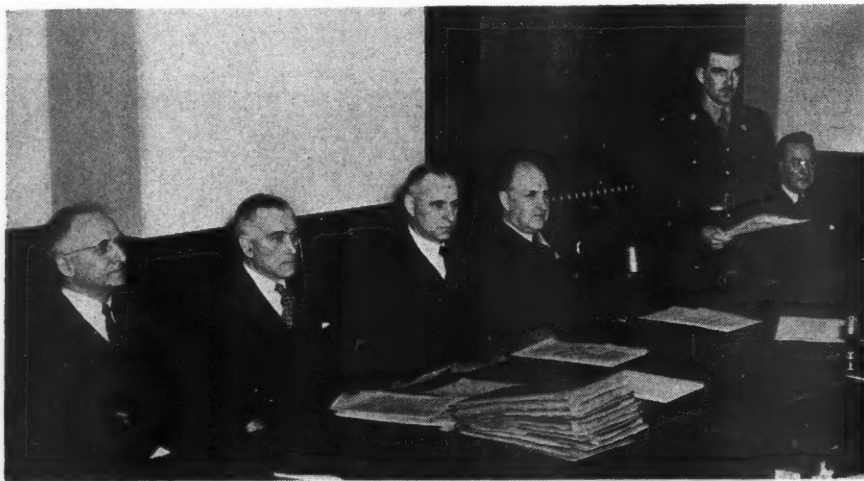


Photo Courtesy Trans-Canada Air Lines

C. N. R. Unions and Management in One-Day Meeting

Capt. W. G. Wells, M.B.E., Royal 22nd Regiment, who urged all present to purchase Sixth Victory Loan bonds, is shown with (left to right): Joseph Corbett, president, Federation No. 11; N. B. Walton, executive vice-president; E. R. Battle, chief of motive power and car equipment, who presided; President R. C. Vaughan, and J. Cupello, vice-president, Federation No. 11, Montreal

NICKEL PLATE increases to 40

ITS FLEET OF

LIMA 2-8-4S



To aid in handling its tremendous volume of traffic, the Nickel Plate Road has recently placed in service fifteen additional 2-8-4 freight locomotives built by the Lima Locomotive Works, Inc.

This makes a total of FORTY Lima Locomotives of this type now in use on the Nickel Plate, which are hauling heavier trains at higher speeds to meet wartime demands.



LIMA LOCOMOTIVE WORKS INCORPORATED, LIMA, OHIO

May 6, 1944

33

satisfactory to Mr. Robertson who so reported to President Roosevelt. The President thereupon wrote to J. J. Pelley, president of the Association of American Railroads, suggesting further negotiations.

Swacker Award Not Accepted—Out of such further negotiations came the Eastern settlement, noted in the *Railway Age* of September 4, 1943, page 380. Later on, the Western roads settled on a like basis. Generally, the Swacker board made findings which had the effect of putting an additional fireman on multiple-unit Diesel-electric locomotives in high-speed, through passenger service; and it recommended extension of the weight-on-driving-wheels gradations of all types of locomotives beyond the upper limits provided in the previous wage schedules. Meanwhile, it recommended against granting several of labor's other demands.

The additional concessions granted by the Eastern and Western roads involve the extension of steam firemen wage rates to Diesel "firemen" in all road freight and passenger services, upgrading of electric "firemen," and more liberal increments in the daily wages of all engine-service employees as the weight-on-driving-wheels gradations were extended above the previous upper limits.

"Perfect Shipping" Dinner Held at Cincinnati

Make every month a "perfect shipping" month, was the keynote of a "Perfect Shipping" dinner held at Cincinnati, Ohio, on April 25. The meeting was sponsored by the Ohio Valley Transportation Advisory Board, the Cincinnati Chamber of Commerce, the Cincinnati Board of Trade, the Cincinnati Traffic Club, the O. D. T., I. C. C. Advisory Committee and the Freight Claim Division of the A. A. R. Presiding were E. A. Jack, general chairman of the national management committee of the 1944 Perfect Shipping Campaign, and Morris Edwards, executive vice-president of the Cincinnati Chamber of Commerce. Addresses were made by Brig. Gen. Robert H. Wylie, assistant chief of transportation of the United States Army, representing the Army; R. H. Hagerman, traffic manager of the National Cash Register Company, representing shippers and receivers; E. B. DeVilbiss, manager of the Insurance Department of the Pennsylvania, representing the railroads; and C. F. Jackson, secretary of the Freight Claim section of the American Trucking Association, Inc., representing the truckers.

Mr. Jack, in introducing the speakers said, "Never before in our history has it been so important to 'protect America's production' and never before in our history have adverse conditions been more prevalent. Manpower shortage, packing material shortage, transportation-equipment shortage, plus the necessity for speed and more speed in production and delivery, have all conspired to build up tremendous factors militating against perfect shipping. That our freight claim losses have not been greater is due to the sincere effort on the part of all to do their best under the circumstances.

"The shippers and receivers of freight have done a fine job—the various transpor-

tation agencies have done a fine job. But for this almost faultless service our miraculous achievement in production would have been an impossibility and our war status would have been very different today."

Gen. Wylie emphasized that the Army must have 12 months of perfect shipping each year. "Early in the war," he said, "it was discovered that normal procedures and long-established standards were not of necessity adequate to insure the arrival of enough material on time and in usable condition to guarantee that our troops had the wherewithal to cope with our enemies. Some of the instances of imperfect shipping were so ridiculous as to be laughable now that we are sure they did not result in tragedies. For example, presto logs were shipped loose and unprotected to a station where the annual rainfall is 240 inches and, much to the dismay of the consignee, produced for him not heat, but a huge pile of sodden sawdust. Items that readily absorb moisture were packaged in containers that were not moisture proof, while other articles unbreakable and not subject to corrosion were protected by ponderous wooden boxes whose weight and cubage exceeded many times that of the contents.

"If technically sound measures are not applied diligently to the preparation of Army freight, the result will be incapacity to operate in every overseas theater. The loss, not simply in economic terms but in reduced operational efficiency due to unreliable and unserviceable equipment and the excessive drain of manpower involved in the reconditioning of equipment, will hurt the war effort irreparably."

Mr. DeVilbiss likewise stressed the importance of safe transportation to the war effort. He pledged the cooperation of the railroads and urged both railroads and shippers to continue throughout the year the perfect shipping record made during April.

Mr. Hagerman discussed the liability of shippers in safe transportation. Because his company, he said, realizes that responsibility

for damage to freight rests with both the shipper and carrier, it does not expect the railroads to pay the entire amount of the lost or damaged articles. The claims filed with the railroads by the National Cash Register Company, he continued, are only 50 per cent of the cost of the damaged or lost article. Also, because it recognizes its responsibility, the company studies shipments to determine whether damage is due to poor containers or to products that cannot be transported without breakage.

C. & N. W. Depreciation Rates

Equipment depreciation rates for the Chicago & North Western are among those prescribed by the Interstate Commerce Commission in a recently-issued series of sub-orders in the general proceeding, "Depreciation Rates for Equipment of Steam Railroad Companies."

The C. & N. W. rates are: Steam locomotive, 3.32 per cent; streamline train motive power, 6.6 per cent; Diesel-electric switchers, 4.89 per cent; freight-train cars, 3.85 per cent; streamline passenger-train cars, 6.6 per cent; conventional type passenger-train cars, 3.11 per cent; work equipment, 3.53 per cent; miscellaneous equipment, 13 per cent.

Swiss Steam Locomotives Now Use Wood for Fuel

Switzerland, with all of its electrified railroads, still uses steam locomotives on certain of its lines which have not been converted to electric operation, but the ever-current problem of providing fuel is now aggravated by wartime conditions.

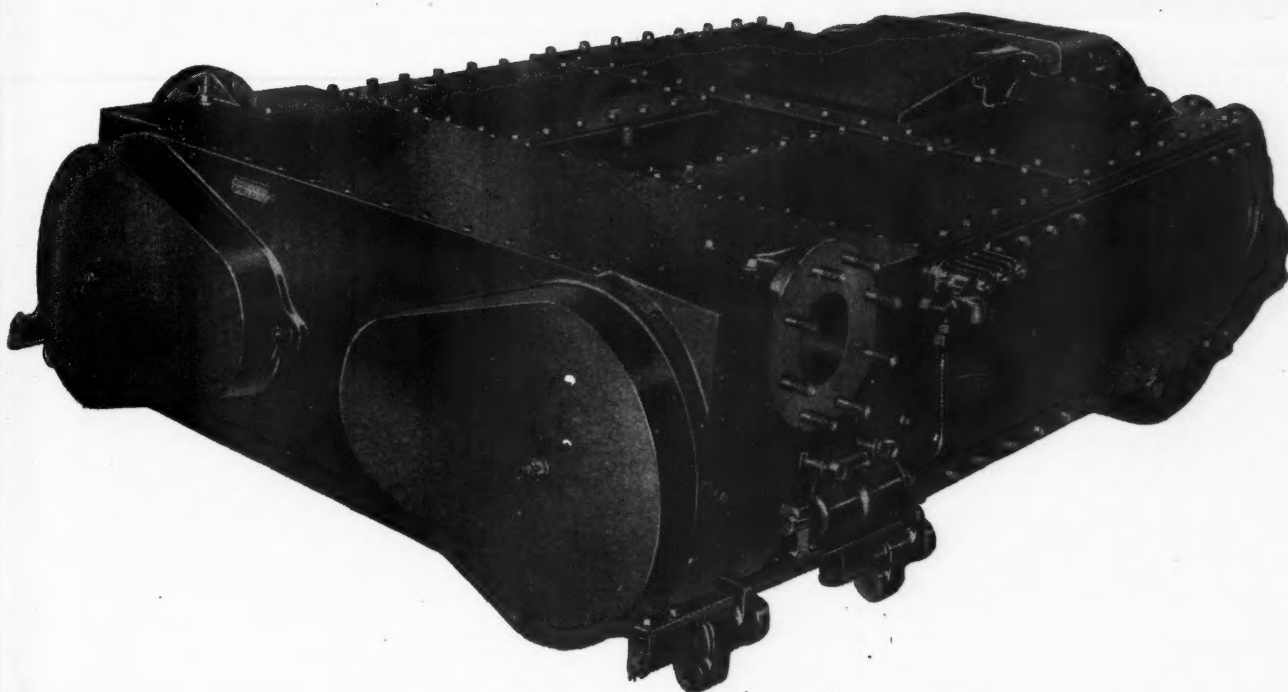
Because of the acute coal shortage, the Swiss Federal Railways have been obliged to fire locomotives with wood—coal being used to fire them up, wood to keep them going. Some steam locomotives have been equipped with electrically-heated boilers and pantograph current collectors, the neces-



Steam Switching Locomotives at a Swiss Railroad Station

The new TYPE "E" Booster*

—has a short cut-off—



RECOGNIZING the trend in locomotive design toward higher boiler pressures, and noting the many new factors in current steam locomotive operation, the new Type "E" Booster has been developed expressly to meet today's conditions.

The short cut-off of the new Type "E" Booster takes full advantage of the expansive properties of the steam and effects marked economies in

steam consumption. The Booster has cast steel cylinders, provided with integral inlet and exhaust manifolds. The large steam and exhaust passages give maximum inlet pressure and minimum back pressures. A new design of ball joint with self-adjusting packing and large passage areas increases the free flow of steam to and from the Booster.

*Trade Mark Reg. U. S. Pat. Off.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.
NEW YORK • CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL



Electrically-Sawed Blocks of 3¼- and 1½-Ft. Lengths Are Used for Firing

sary power for generating steam being taken from the overhead contact wire.

The government-owned railways have given considerable study to the use of wood for fuel, but it is their intent to complete electrification of all lines as quickly as possible. At present, over 90 per cent of their total traffic is handled electrically.

Freight Car Loading

Loadings of revenue freight for the week ended April 29 totaled 851,857 cars, the Association of American Railroads announced on May 4. This was an increase of 11,903 cars or 1.4 per cent above the preceding week, an increase of 63,068 cars or 8.0 per cent above the corresponding week last year, and a decrease of 7,054 cars or 0.8 per cent below the comparable 1942 week.

Loading of revenue freight for the week ended April 22 totaled 839,954 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight-Car Loading

For the Week Ended Saturday, April 22			
District	1944	1943	1942
Eastern	163,607	156,426	172,388
Allegheny	190,188	173,518	192,293
Pocahontas	54,921	55,693	58,140
Southern	124,904	120,771	133,116
Northwestern ..	116,260	97,240	125,373
Central Western	115,907	118,406	116,651
Southwestern ..	74,167	72,109	63,396
Total Western Districts	306,334	287,755	305,420
Total All Roads	839,954	794,163	861,357
Commodities			
Grain and grain products	37,949	45,214	35,677
Livestock	15,615	15,156	13,785
Coal	175,305	164,978	169,662
Coke	14,747	14,533	14,045
Forest products	43,495	43,186	51,260
Ore	60,131	35,383	70,911
Merchandise			
l.c.l.	107,021	98,563	123,586
Miscellaneous ..	385,691	377,150	382,431
April 22	839,954	794,163	861,357
April 15	799,965	780,908	846,505
April 8	789,324	789,019	814,096
April 1	787,525	772,102	829,038
March 25	778,925	787,340	808,286
Cumulative Total,			
17 Weeks ..	13,307,892	12,797,173	13,507,198

In Canada.—Carloadings for the week ended April 22 totaled 70,224 (the highest this year), as compared with 2,187 for the previous week, according to the compilation of the Dominion Bureau of Statistics. Comparisons with loadings a year ago are affected by the holiday on "Good Friday," April 23, 1943:

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
Apr. 22, 1944	70,224	38,449
Apr. 15, 1944	68,037	37,705
Apr. 8, 1944	63,008	41,320
Apr. 24, 1943	60,424	40,033
Cumulative Totals for Canada		
Apr. 22, 1944	1,086,432	638,185
Apr. 24, 1943	986,590	624,091
Apr. 25, 1942	996,057	516,978

Representation of Employees

Because its check showed that less than a majority of each class of employees involved desired a change in representation, the National Mediation Board was unable

to find that disputes existed within the meaning of the Railway Labor Act, and has thus dismissed applications for elections whereby the Railroad Workers' Industrial Union, District 50, United Mine Workers of America, sought to challenge the rights of four railroad brotherhoods to represent employees of the Detroit & Toledo Shore Line.

The U. M. W. affiliate sought elections to determine who should represent road conductors, now represented by the Order of Railway Conductors; road trainmen, represented by the Brotherhood of Railroad Trainmen; yardmen, represented by the Switchmen's Union of North America; and maintenance of way employees, now represented by the Brotherhood of Maintenance of Way Employees.

In a recent election held among the Cuyahoga Valley's eight unrepresented yardmasters, the B. of R. T. failed in its effort to become the bargaining agent, be-

To Hold "Institute" of Transport in N. Y.

The Transportation Association of America, in co-operation with New York University will hold an "Institute of Transportation—1944" at the Waldorf-Astoria Hotel, New York, on May 23-24. The program (in slightly abbreviated form) follows:

MAY 23—MORNING SESSION

"Socialized Transport and the Future of Enterprise"

By Professor Herbert B. Dorau, N. Y. University

"Appraisal of Congressional Transport Policy" By Kenneth F. Burgess, Attorney, of Chicago

"The Fundamental Interest of the Shipper"

By Charles W. Braden, Chm., Post-War Policy Committee, N. I. T. League

MAY 23—AFTERNOON SESSION

"Equalization in Subsidies Among Transportation Agencies"

By Professor W. J. Cunningham, Harvard University

"Regulated Monopoly or Competition" By Professor Sidney L. Miller, Iowa University

"The Principle of Common Ownership" By Paul W. Brown Gen. Traf. Mgr., Sears-Roebuck

MAY 23—EVENING (DINNER) SESSION

"Political Regulation of Transportation" By John B. Keeler, President, N. I. T. League

"The Public Interest" By Henry A. Palmer, Editor, "Traffic World"

MAY 24—MORNING SESSION

"Regulatory and Anti-Trust Statutes" By John S. Burchmore, Lawyer, of Chicago

"Transportation Facilities in the Petroleum Industry"

By C. R. Musgrave, Vice-President, Phillips Petroleum Co.

"Coordination of Bus and Air Transport" By A. M. Hill, President, Atlantic Greyhound Corp.

"Monopoly or Competition in International Air Transport"

By John E. Slater, Exec. Vice-Pres., American Export Airlines

MAY 24—AFTERNOON SESSION

"Integrated Ownership and Operation of Common Carriers"

By R. V. Fletcher, Vice-President, A. A. R.

"National Policy to Attract Private Investment"

By Henry S. Sturgis, Vice-Pres., 1st National Bank (N. Y.)

MAY 24—EVENING (BANQUET) SESSION

"Movements of the War"

By Henry J. Taylor, Radio Commentator, Scripps-Howard Correspondent

"The Future of Our Merchant Marine"

By Admiral Emory S. Land, U. S. Maritime Commission

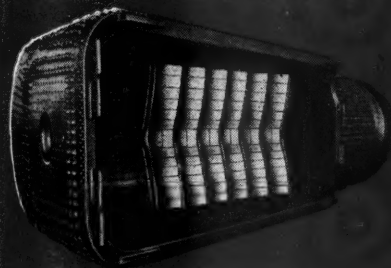
Those who wish to attend the sessions are urged to make advance reservations, enclosing check to cover fees. A registration charge of \$5 is made, which admits to all sessions except the two dinners. The charge for the dinner on May 23 is \$5, and for the banquet on May 24, \$7.50. Attendance at the May 23 dinner is restricted to registrants and speakers at the day-time sessions, but the May 24 banquet is not so restricted. Group tables, seating 10, are available for the banquet at a \$75 charge. Business dress is suggested. Applications for registrations and dinner tickets should be sent to "Institute of Transportation—1944", N. Y. University School of Law, Washington Sq. W., New York 3.

Security Circulators

ASSURE THESE IMPORTANT ADVANTAGES

1. POSITIVE FLOW OF WATER
OVER **CENTER** OF CROWN SHEET
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SECURITY CIRCULATOR DIVISION

NEW YORK

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cause legal ballots were cast by less than a majority of those eligible to vote. Meanwhile, the O. R. C. has won the right to represent St. Louis-San Francisco dining car stewards, supplanting the Employee Representation Committee, Dining Car Stewards, St. Louis-San Francisco Railway Company. And the Order of Railroad Telegraphers has won the right to represent telegraphers employed by the Columbus, Ohio, Union Depot.

Fined for "Abetting" Part II Violation by Trucker

Secretary W. P. Bartel has disclosed that the Interstate Commerce Commission has been informed that the Baltimore & Ohio was fined \$1,000 in the federal district court at Columbus, Ohio, upon pleading guilty to an information to the effect that it had "aided and abetted" a motor truck operator, Clarence L. McKee, in an offense under part II of the Interstate Commerce Act, namely, performing a substituted freight service for the railroad without first having obtained an I. C. C. certificate authorizing him to perform such service.

V. C. Clinger Named Director of I. C. C. Service Bureau

Virgil C. Clinger, service agent of the Interstate Commerce Commission's Bureau of Service with headquarters at Dallas, Texas, has been appointed director of that Bureau with headquarters at Washington, D. C. He succeeds Homer C. King whose appointment as executive assistant to Colonel J. Monroe Johnson, director of the Office of Defense Transportation, was noted in the *Railway Age* of April 15, page 737.

At that time it had been reported that Mr. King would be on leave of absence from the Bureau; but the commission's announcement of May 1 revealed that he had resigned to accept the O. D. T. post.

J. Jones Challenges Boatner's Motives

(Continued from page 863)

the letter explained, and in this connection Mr. Jones included another letter, also placed in the Congressional Record by Senator Johnson, which showed that he wrote to President O'Neal of the C. & E. I. on October 11, 1943, to the effect that the directors "would not be in too big a hurry to pay dividends on the common stock," in view of the road's obligations to the R. F. C., which, he said, "if we are to judge the future by the past, . . . is apt to be the principal source of credit for railroads in the future."

Continuing his letter to Senator Johnson, Mr. Jones said, "It is well known that in the past many of our railroads have suffered from exploitation, and speculators are now active in cheap railroad stocks because of the large temporary earnings made possible by the war. These operators will bear watching, particularly with respect to roads which come out of bankruptcy with low fixed charges. Such roads are easy prey for manipulators. There can be, of course, no objection to investors buying cheap stocks, but any movement

to manipulate a railroad for the personal profit of its officers or directors should not be allowed, even if it requires legislation to prevent it."

Present Management "Good"—Reviewing the receivership experiences of the C. & E. I., and asserting that, "except for a few switching engines, it has not been able to buy a new locomotive for twenty years," Mr. Jones added that it should have "management that is interested in the ultimate success of the property, and not in speculating in its securities." The road's present management he termed "good."

"Upon investigation," the Secretary continued, "it will be found that Mr. Boatner has had very little railroad operation experience, and none since 1931. While he was president of a small terminal or switching company at Peoria for several years, his only experience in management of a railroad was less than 2 years as president of the Chicago Great Western." After explaining how the R. F. C. was entitled to select 3 of the 13 directors of the C. & E. I. so long as it owned as much as \$1,000,000 of the road's first mortgage bonds, Mr. Jones pointed out that this does not constitute control by the R. F. C., which now holds some \$10,161,000 of these bonds.

R. F. C. Policy on Dividends—"It is my considered judgment," he added, "that if Mr. Boatner has been speculating in the stocks or other securities of the C. & E. I. Railroad while serving as one of its directors, as is indicated by the records, he should be disqualified for any position of management in connection with the road. . . . Mr. Boatner's published statements leave the impression that the policy of the R. F. C. is not in the best interests of stockholders of corporations which find it necessary to borrow from it. The facts are exactly to the contrary. . . . However, generally speaking, corporations which can borrow only from the government should not be too free in the payment of dividends."

The Secretary already had remarked that "The R. F. C. has been practically the only source of credit for railroads for more than a decade. Its loans are made on a constructive basis, with no fees or underwriting charges. We have a definite responsibility in making loans to railroads, and while we are not interested in who owns them, we are interested in their management and financial policy if they come to the R. F. C. for money. Management is often as much a factor in lending money as the actual security offered."

The K. C. S. Incident—The subcommittee hearing arising from Mr. Boatner's allegations was called to give consideration to Senate Resolution 278, introduced by Senator Reed, Republican of Kansas, who, with Senators Johnson and Clark of Idaho, Democrats, form the subcommittee. This resolution, designed to bring about an investigation of R. F. C. relationships with railroad managements, was introduced at a time when that agency's alleged influence on the Kansas City Southern was the subject of Senator Reed's interest. This matter, which was removed from the arena

of contention when C. P. Couch was, in Mr. Jones' words, "persuaded to withdraw" from the road's management to take "a long-time employment contract with the road at a very substantial salary, for which he is only required to give advice and counsel upon request," led the Secretary to write Senator Wheeler to explain his position in this controversy, and that letter also was placed in the Congressional Record by the Senator on May 2.

In the letter dealing with the K. C. S. allegations, Mr. Jones referred to Senator Reed's "recent diatribe about me and the R. F. C.," and denied the Senator's statement that Mr. Couch "is a political and financial protege of mine." The R. F. C., he said, does not extend credit "on political or personal considerations."

Remarking that, of \$1,050,905,675 invested by the R. F. C. in railroad loans, \$658,241,727 has been paid or sold, the Secretary said, "We estimate that there will be no net loss to the corporation from its investments in railroad bonds." The views with respect to the payment of dividends which were set forth in the letter dealing with the C. & E. I. also appeared in this letter, in which he went on to say, "Present temporary and abnormal earnings of all railroads, which are due entirely to the war, should be conserved for debt purposes and for delayed maintenance occasioned by the lack of materials and manpower the last few years."

Motor Carrier Insurance

The Interstate Commerce Commission, Division 5, has issued a second report on further hearing in the Ex Parte No. MC-5 proceeding involving motor carrier insurance for the protection of the public. The report promulgates a new Rule VIII, embodying a requirement that motor carrier insurers must possess specified minimum financial resources. The majority report represents the view of Commissioners Lee and Patterson, the dissent of Commissioner Rogers being noted.

Shipstead Waxes Wroth Over Bankers' Fees

Calling further attention to his interest in bringing about compulsory competitive bidding in the sale of all railroad securities, Senator Shipstead, Republican of Minnesota, had printed in the appendix of the Congressional Record of May 2 the text of a letter which he addressed to Chairman Patterson of the Interstate Commerce Commission, which now has under consideration the record in its pending Ex Parte No. 158 proceeding, dealing with this question.

The letter directed attention to an arrangement whereby the Chicago, Burlington & Quincy, in connection with the private sale to certain insurance companies of a \$30,000,000 collateral trust bond issue (reported in *Railway Age* of April 29, page 836) would pay Morgan Stanley & Co., "for alleged advice and assistance to the railroad on the sale," "the outrageous fee of \$75,000." It also referred to an arrangement whereby the Pennsylvania, in connection with the private sale to a group of insurance companies and banks of a \$35,000,000 issue of notes of its subsidiary, the Pennsylvania Company (outlined in *Rail-*

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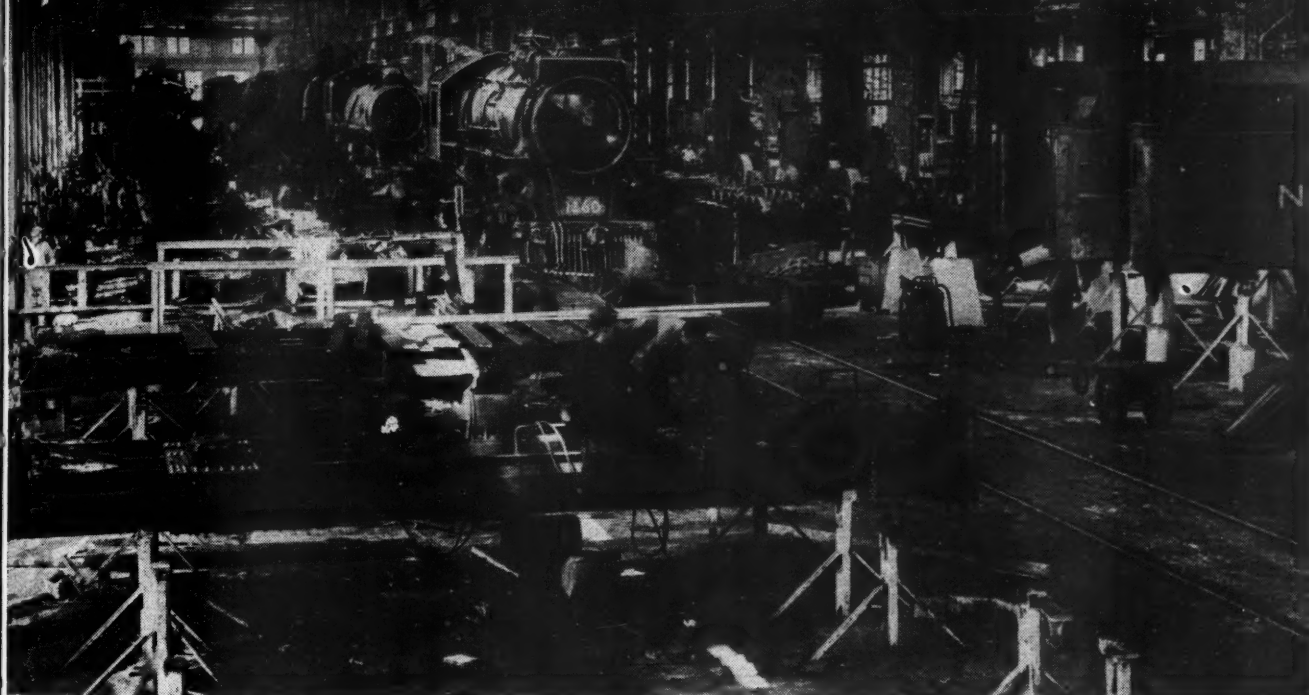
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When heavy boiler repairs are required, additional evaporating and superheating surfaces can be obtained with small flues and type E superheaters.

With the increase in Boiler Horsepower resulting from this combination, older locomotives can maintain the pace set for heavier loads and faster schedules.

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May 6, 1944

36

way Age of April 22, page 799), proposed to pay Kuhn Loeb & Co. "the outrageous sum of \$87,500 for alleged assistance on the sale."

Asserting that, "by using the telephone for a few hours," these roads could have arranged for the sale of these securities to the purchasers without enlisting the services of the banking firms, Mr. Shipstead remarked that, if required competitive bidding had been in effect, "the question of these scandalous fees would never have arisen. . . . As it is," he continued, "the Interstate Commerce Commission has only one honest course open to it—that is, to disallow the proposed payments to Morgan Stanley and Kuhn Loeb, and to adopt a competitive bidding requirement so that no railroad or banking house may ever again have the effrontery to suggest this reckless dissipation of railroad stockholders' money."

Land Grant Repealer Reported to House

(Continued from page 862)

There it is stated that the rate-deduction requirement was not the "primary obligation" imposed upon the land-grant roads. More important was the obligation to construct the proposed lines "at a cost many times the value of the granted lands." And this the railroads did with the result that

the alternate sections of land retained by the government "were enhanced in value many times over." Meanwhile, however, the committee sees the government's "major reward" from the land grants to have come "from the settlement of the territory, the general increase in wealth, and the strengthening of the nation."

It is also asserted that at the time of the grants "no one could have anticipated" anything like the volume of government traffic which has moved over the railroads. Mention is made of the study by the late Joseph B. Eastman in his former role of Federal Coordinator of Transportation; and of the later studies of the Board of Investigation and Research. From the two it seemed "clear" to the committee that "from the land-grant deductions alone the government has received by this time an amount far beyond anything that has ever been suggested by anyone as the value of the granted lands."

Govt. Should "Renegotiate" — Thus it is "quite evident that the government has been reimbursed in many ways and many times over for everything that passed from it to the railroads under these land-grant contracts." It is further suggested that the government should not hesitate to apply the renegotiation principle to itself at this time "when it is insisting upon its right to compel its citizens to submit to renegotiation of their contracts with it,

lest because of changed conditions they realize excessive profits therefrom."

Personnel Needs Reach 108,000 on April 1

Personnel needs of the railway industry reached a new high of 108,000 persons at the beginning of April, according to the Railroad Retirement Board. This compares with 101,000 as of March 1 and 78,000 on April 1, 1943. The figure for the entire industry is based on reports from 197 employers, which showed a need for 102,000 additional workers. Seasonal expansion of maintenance-of-way activities and larger reported needs for skilled shop workers account for most of the rise from March to April, the report states. While there were more unfilled jobs than a month earlier in all areas except the New England and middle Atlantic states, the report continues, about half of the increase occurred in the states around the Great Lakes.

Needs became greater in all but one occupational group, the Board stated. As in the preceding month, the largest increase, that for laborers, arose primarily from the demand for additional trackmen, especially section laborers. Needs for journeymen and helpers and apprentices also increased, but to a lesser extent numerically. In the train and engine group, a greater number of vacant jobs for conductors, en-

* * * *



Official U. S. Army Signal Corps Photo

The American "Mercy Special No. 2" in Italy on Its First Run

This new hospital train, built by the U. S. Military Railway Service from captured German and Italian cars, loads wounded at Riardo, Italy, from which collection point such casualties are removed to rear area hospitals.

ginemen and firemen was largely offset by smaller needs for brakemen and switchmen.

Personnel Needs of Employers Reporting for Both March and April* April 1, 1944

Occupational group	Needs reported		Per cent of March
	Number	Per cent of Total	
Executives, professional men, telegraphers, and clerks	4,164	4.1	100.8
Trainmen and enginemen	7,489	7.4	102.0
Skilled trades journeymen	14,305	14.2	112.0
Skilled trades helpers and apprentices	13,374	13.3	106.8
Laborers	58,819	58.6	107.7
Attendants, cooks, porters, and waiters	1,454	1.4	96.5
Miscellaneous	1,000	1.0	107.8
Total	*100,605	100.0	107.2

*The total of personnel needs reported in this table is smaller than the number mentioned in the text above since it excludes the needs of those employers who did not also report for March.

Personnel shortages were larger in April in five of the six geographical areas. The greatest per cent of increase occurred in the Southeast but the largest numerical increase occurred in the states around the Great Lakes. In both of these areas, there were increased needs in the skilled trades and laborer groups while in the former area there was a rise of 300 in the number of trainmen and enginemen needed. In the far west, reported needs were larger than on March 1 but nearly 1,000 less than the number reported in April 1943.

Proposes \$1,125,000,000 for Local Rural Roads

Representative Kefauver, Democrat of Kentucky, has introduced H. R. 4718 "to authorize appropriations for the post-war construction of greatly needed rural local roads," and "to provide for the immediate preparation of plans and acquisition of rights-of-way to cushion the post-war conversion to peacetime economy." The bill would authorize total appropriations of \$1,125,000,000 "to become available at the rate of \$375,000,000 a year for each of the three years immediately following the termination of the war."

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago 80, Ill.
AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis, Mo.
AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.
AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill. Annual meeting May 9-11, 1944, Hotel Stevens, Chicago, Ill.
AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.
AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill. Annual meeting, October 17-19, 1944, Chicago, Ill.
AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.
AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—J. B. Lanctot, Canadian National Rys., E. 811 First National Bank Bldg., St. Paul, Minn. Next meeting, December 14-15, 1944, Palmer House Club Bldg., Chicago, Ill.
AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIA-

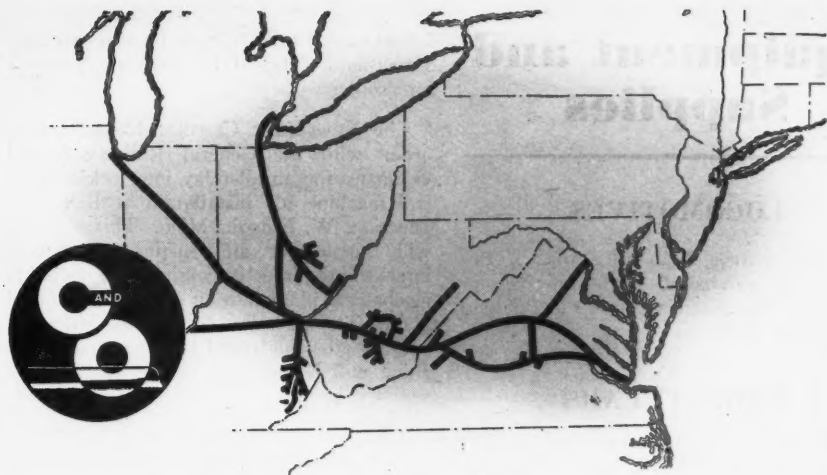
TION.—Page N. Price, Norfolk & Western Magazine, Roanoke, Va.
AMERICAN SHORT LINE RAILROAD ASSOCIATION.—W. R. Stough, Jr. (Ass't Secy.-Treas.), Tower Bldg., Washington, D. C.
AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18, N. Y. Semi-Annual Meeting, June 19-22, 1944, William Penn Hotel, Pittsburgh, Pa. Railroad Division.—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.
AMERICAN TRANSIT ASSOCIATION.—Guy C. Heckler, 292 Madison Ave., New York 17, N. Y.
AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St., N. W., Washington 5, D. C.
ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.—A. S. Beery, Newsweek, Dayton, Ohio.
ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago 5, Ill.
ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington 6, D. C.
Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington 6, D. C.
Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.
Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y.
Freight Station Section.—N. Kaplan, 59 E. Van Buren St., Chicago 5, Ill.
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Safety Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y.
Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y. Annual meeting, October 4-5, 1944, Hotel Stevens, Chicago, Ill.
Mechanical Division.—Arthur C. Brown, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 23-24, 1944, Jefferson Hotel, St. Louis, Mo.
Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, October 12-13, 1944, Hotel Sherman, Chicago, Ill.
Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C. Annual meeting, June 22-23, 1944, Palmer House, Chicago, Ill.
Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill.
Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington 6, D. C.
Car Service Division.—E. W. Coughlin (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.
Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.
Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.
ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, May 24-25, 1944, Hotel Sherman, Chicago, Ill.
BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill.
CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcell Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.
CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.
CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill. Annual meeting, September 26-28, 1944, Hotel Sherman, Chicago, Ill.
CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of

each month, except June, July and August, La Salle Hotel, Chicago, Ill.
CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.
EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.
EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.
LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark. Annual meeting, September 26-28, 1944, Hotel Sherman, Chicago, Ill.
MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y. Annual meeting, September 26-28, 1944, Hotel Sherman, Chicago, Ill.
NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C.
NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—C. J. Goodyear, 725 Reading Terminal, Philadelphia 5, Pa.
NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November, 1944, Hotel Pennsylvania, New York, N. Y.
NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill.
NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.
NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.
NORTHWEST CARMEN'S ASSOCIATION.—E. N. Myers, Minnesota Transfer Ry., St. Paul, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.
PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Hayward, Los Angeles, Cal.
RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.
RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.
RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.
RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill. Annual meeting, September 26-28, 1944, Hotel Sherman, Chicago, Ill.
RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa.
RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Telegraph and Telephone Section of A. A. R.
RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo. Annual meeting, May 16-17, 1944, Netherland Plaza Hotel, Cincinnati, O.
ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill. Annual meeting, September 19-21, 1944, Hotel Stevens, Chicago, Ill.
SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.
SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.
SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga.
TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.
TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill.
UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island 2, N. Y.
WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.



KEEPING **PACE with**





Alco, recently, completed the delivery of forty (40) of these high-powered, high-speed, heavy tonnage locomotives to the Chesapeake & Ohio.

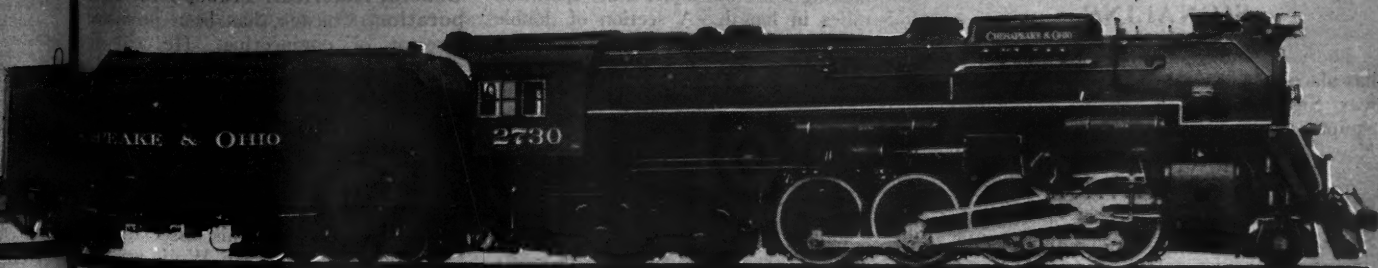
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it the NATION'S NEEDS...



Locomotive Characteristics

Weight on Drivers	292,000 Lb.
Weight of Engine	460,000 Lb.
Cylinders	28 x 34 Ins.
Diameter of Drivers	89 Ins.
Boiler Pressure	245 Lb.
Tractive Power with Booster	83,750 Lb.
Tender Capacity—Fuel	30 Tons
Tender Capacity—Water	21,000 Gals.



AMERICAN LOCOMOTIVE

MANUFACTURERS OF MOBILE POWER

STEAM, DIESEL AND ELECTRIC LOCOMOTIVES, MARINE DIESELS, TANKS, GUN CARRIAGES & OTHER ORDNANCE

Equipment and Supplies

LOCOMOTIVES

The RICHMOND, FREDERICKSBURG & POTOMAC has purchased 10 locomotives of 4-8-4 wheel arrangement from the Baldwin Locomotive Works.

FREIGHT CARS

The NORFOLK & WESTERN has ordered 500 box cars of 50 tons' capacity from the railroad's own shops.

The INLAND STEEL COMPANY has ordered 75 100-ton flat cars from the General American Transportation Corporation.

The FLORIDA EAST COAST has ordered 50 box cars of 50 tons' capacity from the Magor Car Corporation.

The WEIRTON STEEL COMPANY has ordered 75 100-ton mill flat cars from the General American Transportation Corporation.

The NEW YORK CENTRAL has authorized the construction of 3,000 box cars of 55 tons' capacity by its subsidiary, Despatch Shops, Inc., at East Rochester, N. Y. These are in addition to the 1,000 55-ton box cars ordered by the railroad from Despatch Shops in March and reported in *Railway Age* of March 25.

PASSENGER CARS

New York Central Orders 300 Passenger-Train Cars

The New York Central has placed preliminary orders for 300 passenger-train cars for delivery when material is released for that purpose by the War Production Board. The Pullman-Standard Car Manufacturing Company will build 153 of the cars; the Edward G. Budd Manufacturing Company, 127; and the American Car & Foundry Co., 20. The railroad's request for bids for this equipment was reported in the *Railway Age* of February 12.

SIGNALING

The AMERICAN LOCOMOTIVE COMPANY has placed a contract with the General Railway Signal Company for ten cab signal equipments to be installed on New York, New Haven & Hartford locomotives.

The ELECTRO-MOTIVE CORPORATION has placed contracts with the General Railway Signal Company for ten intermittent inductive engine equipments for installation on Atlantic Coast Line locomotives.

The KANSAS CITY SOUTHERN has placed a contract with the General Railway Signal Company for materials to install unit-wire all-relay interlocking at Beaumont, Tex. The order includes 4 type-FA dwarf signals, 1 model 5D switch machine, 23 B relays,

1 field case, 1 pedestal-type control machine, 5 rectifiers, 2 type-U1 transformers and 1 interrupter.

The NEW YORK CENTRAL has placed an order with the General Railway Signal Company for an all-relay interlocking control machine for installation at Belt Line Junction, W. Detroit, Mich. This machine will supplement an existing mechanical interlocking, thus changing the existing mechanical plant into an electro-mechanical plant. The all-relay control machine will operate all signals and the mechanical machine will be confined to the operation of the switches.

THE CHICAGO, BURLINGTON & QUINCY has placed an order with the General Railway Signal Company for a type K, class M, size 10, centralized traffic control system for installation at Lawler Tower, Ottumwa, Iowa. The 17-in. desk type control machine at Ottumwa will govern 1 model 5D switch machine and 12 type SA signals over a 1000-ft. territory. Besides the control machine, the order includes relays, rectifiers, transformers, centralized traffic control code units, and other incidental material.

THE MISSOURI PACIFIC (Gulf Coast Lines) has placed a contract with the General Railway Signal Company for absolute-permissive block signaling between Kenefick, Tex., and Beaumont. In addition, an order was placed for a unit-wire electric interlocking at Beaumont for the remote control of a switch machine and four signals. Necessary material and equipment for these installations includes 52 automatic signals, type D, for the A. P. B. territory and 8 type G and 3 type D signals for the electric interlocking; 320 type K relays; 56 rectifiers, 27 transformers, 1 switch machine, 48 housings and 1 bungalow.

THE WABASH has placed an order with the Union Switch & Signal Co., covering the required material to install centralized traffic control between the end of double track at East Yard, Lafayette, Ind., and Delphi, to include the control of two passing sidings and the supervisory control of an interlocking plant at Delphi. Two remote control locations at the end of double track at East Yard, Lafayette, and at the passing trackswitch at East Delphi, now operated from an existing c.t.c. machine at Peru, Ind., will be incorporated in the system, making a section under c.t.c. operation 16.5 miles in length. A section of double track 3.2 miles long that is now equipped with automatic block signals at Lafayette, separates this project from the original c.t.c. installation in this territory between Lafayette Junction and State Line, Ind. Although the control machine for the original layout was installed at Peru, 93 miles from the farthest location at State Line, the equipment necessary to handle the new 16.5 mile section will be added to this machine. Involved in the order is the necessary code equipment to correspond with the present code system now in service on the original installation and including style H-5 searchlight signals, style M-22A switch layouts, relays, rectifiers, transformers and housings. The field installation will be carried out by the railroad company's forces.

Supply Trade

Pullman-Standard Launches Its First Landing Ship

The first of a new type landing ship destined to complete the Navy's invasion armada was launched on April 29 from yards of the Pullman-Standard Car Manufacturing Company at Chicago. Known as the LSM (Landing Ship—Medium), the new vessel is the final and most restricted of 11 basic designs of landing craft deemed necessary by the Navy to assure success of coming amphibious operations. It is more than 200 ft. long.

Harry Andrews, assistant superintendent who acted as master of ceremonies, revealed that "this is the first LSM to be launched in the Middle West—only two other shipyards in the United States, both on ocean ports, having launched any of these ships." Mr. Andrews also said that the "LSM incorporates many new features which our engineers have learned from the study of amphibious landings at Tarawa and other South Pacific islands."

Mrs. John Kappel, a pipe coverer working on ships in the yard, acted as sponsor of the vessel. She was chosen because of her outstanding attendance record, having neither been absent nor late for work during the past year.

Commander Paul S. Goen, U. S. N. (ret.), supervisor of shipbuilding, Chicago, represented the Navy on the program and revealed that the LSM is "a full sea-going type which can go anywhere by itself and have more speed than contemporary landing craft." He also advised the employee that "within the next few months you will be reading plenty in the papers regarding their use in most important amphibious operations."

C. F. Norberg has been elected vice president in charge of manufacturing, and D. N. Smith, comptroller, of the Electric Storage Battery Company.

George H. Rose, chief engineer of the American Steel & Wire Co., Cleveland, Ohio, has been elected vice-president and has been succeeded by Eugene J. Reardon, assistant chief engineer.

R. W. Thompson, chief engineer of the General American Transportation Corporation, Chicago, has been promoted to director of engineering. He will direct research development activities and all engineering work of all departments.

Harry L. Wolfe, for 19 years supervisor of sales in the Chicago and eastern territory for the Lehon Company, has joined the railroad division of the Budd Company. Prior to his association with the Lehon Company, Mr. Wolfe was supervisor of fuel with the Chicago, Milwaukee & St. Paul & Pacific.

Harry Scullin, president of the Scullin Steel Company, St. Louis, Mo., has been elected chairman of the board and has been succeeded by E. F. Judge, vice-president. W. H. Chickey, secretary, has been elected.

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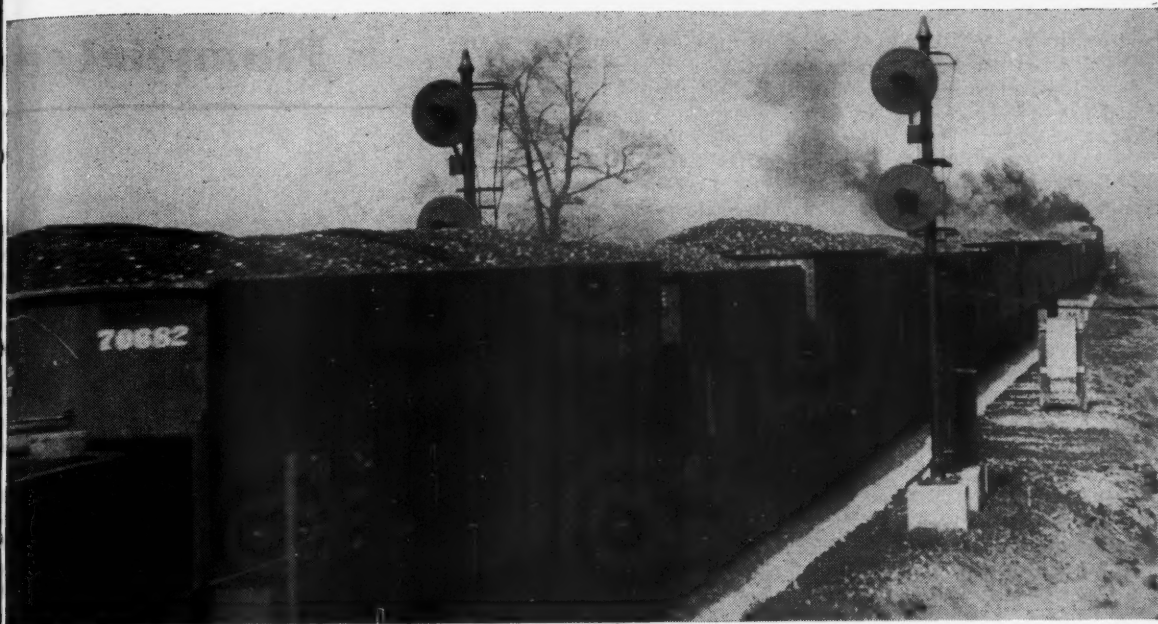
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Everything Under Control

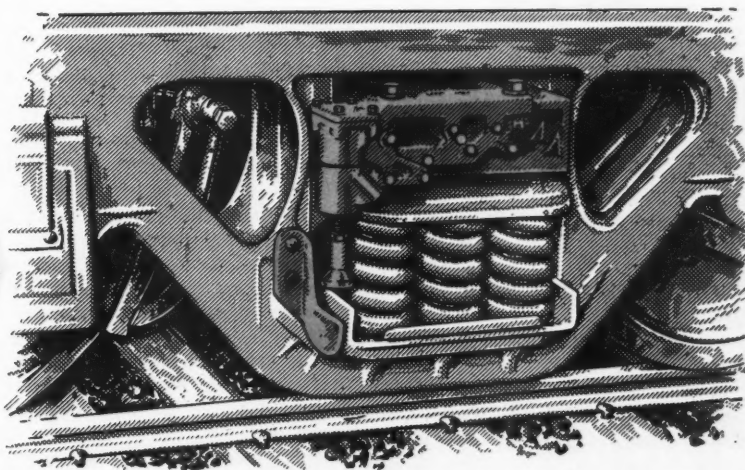
In this loaded string of 70 and 90 ton lightweight hoppers, mixed with 50, 70 and 90 ton conventional hoppers, everything is under control.

All are going along together to the coal dock at a higher speed because the lightweights are equipped with the "AB" Automatic Empty and Load Brake to brake the extra pay load.

On returning lightweights, loaded with ore, the load brake again handles the extra tonnage. When empty, the lower tare of the lightweights is braked at the standard value of the heavyweights, so that both carry a uniform rate of retardation. Coming or going, empty or loaded, the "AB" control means better train handling, on the level, on the grades.

Automatic Change-Over

Change-Over from empty to load, or load to empty, automatically takes place while the brake pipe is being charged during train make-up. No manual adjustment is required.



WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA

ed vice-president and controller. **William J. Monahan**, assistant secretary and assistant treasurer, has been promoted to secretary and treasurer and has been succeeded by **Edwin L. Kaiser**, cashier.

George A. W. Bell, Jr., formerly manager of sales to the railroads of the **Caterpillar Tractor Company**, Peoria, Ill., and since 1938 district representative of the company in Colorado, Wyoming, Nebraska, Kansas and central and eastern Montana, with headquarters at Denver, Colo., has resigned to become general sales manager of the **Connelly Machinery Company**, Billings, Mont., distributors of Caterpillar equipment in Montana.

Volney B. Fowler, who has been in charge of public relations of the General Engine group of the **General Motors Corporation** with headquarters at Detroit, Mich., has been promoted to assistant to vice-president of the **Electro-Motive Division** with headquarters at LaGrange, Ill., where he will have charge of public relations of Electro-Motive. Following twelve years in the editorial department of the Indianapolis Times, Mr. Fowler went with General Motors Export Division in charge of publicity in 1929. In 1932 he went



Volney B. Fowler

to the Detroit office of the Department of Public Relations of General Motors and was in charge of this office when he was placed in charge of public relations of the General Engine Group in 1937. He has held the latter position until the present appointment.

E. N. Sanders, who for the last 20 months has served as vice-president in organizing the **Tubular Alloy Steel Corporation**, Gary, Ind., has resumed his position as vice-president in charge of operations of the **National Tube Company**, Pittsburgh, Pa. **Leo J. Mason**, general superintendent of the Ellwood City, Pa., works of the National Tube Company, has been elected vice-president of the Tubular Alloy Steel Corporation.

The Army-Navy "E" Pennant was presented to the **Buda Company**, Harvey, Illinois, and "E" pins were presented to employees by officers of the military forces on April 27. The presentation was attend-

ed by more than 4,000 employees of the company. **Stewart S. Hathaway**, chairman of the Buda Company, acted as master of ceremonies and the pennant was accepted by **J. S. Dempsey**, president of the company, while **Henry Kickert**, oldest employee of the company, accepted the "E" pins on behalf of the employees.

John E. Long, for the past five years western sales manager of the **Franklin Railway Supply Company** with head-



John E. Long

quarters at Chicago, has been appointed general sales manager of the company, with headquarters in New York. Mr. Long was graduated from Purdue University with a degree in mechanical engineering in 1923. He began his career with the Lima Locomotive Works in that year and during the next eleven years was employed in the calculating, service, engineering and sales departments. He joined the Chicago office of the Franklin Railway Supply Company in 1934 and was promoted to western sales manager in 1939. **William T. Lane**, assistant western sales manager, has been appointed western sales manager to succeed Mr. Long at Chicago. Mr. Lane began his career with the Franklin Railway Supply Company as a draftsman and was subsequently appointed chief draftsman and mechanical engineer. He joined the sales department as district manager of the Pacific Coast territory, later being moved to Chicago as assistant western sales manager.

Harold B. Ressler, vice-president of **Joseph T. Ryerson & Son, Inc.**, who has been located at the company's New York plant, has been appointed in general charge of sales in all territories with headquarters in Chicago. **Ainslie Y. Sawyer**, assistant to the president, has been elected vice-president and will continue at Chicago in general charge of purchases. Mr. Sawyer recently returned from Washington where he served as deputy chief of the warehouse steel branch of the War Production Board. **Harry W. Treleven**, assistant manager of the Ryerson New York plant, has been appointed manager of that plant which is located in Jersey City, N. J., and **Thomas Z. Hayward**, who was in charge of tubing sales and priorities, has been appointed assistant general manager of sales.

Financial

CENTRAL OF NEW JERSEY.—Opposes Rate Order.—On May 3, **William Wyer**, chief executive officer, said the railroad had telegraphed the Association of American Railroads that it would not acquiesce to another six months' suspension of the 1942 freight rate increases and had urged a number of other railroads to take the same position.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Annual Report.—The 1943 annual statement of this road, shows a net income, after interest and other charges, of \$29,413,623, as compared with a net income of \$12,174,831 in 1942. Selected items from the income statement follow:

	1943	Increase or Decrease Compared with 1942
RAILWAY OPERATING REVENUES	\$224,515,240	+\$44,647,960
Maintenance of way and structures	36,149,211	+10,590,026
Maintenance of equipment	31,362,161	+5,297,035
Transportation	67,796,281	+12,395,963
TOTAL OPERATING EXPENSES	145,735,801	+29,772,537
Operating ratio	64.91	—34
NET REVENUE FROM OPERATIONS	78,779,439	+14,875,423
Railway tax accruals	26,030,000	+329,000
RAILWAY OPERATING INCOME		
Equipment rents—		
Net Cr.	165,524	+622,342
Joint facility rents—		
Net Dr.	2,246,009	—995,535
NET RAILWAY OPERATING INCOME	50,668,954	+16,164,300
Other income	1,914,784	+790,591
GROSS INCOME	52,481,624	+17,041,047
Rent for leased roads	1,109,060	—154
Interest on funded debt	12,789,232	+216
TOTAL FIXED CHARGES	13,924,316	—197,745
NET INCOME	29,413,623	+17,238,792

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Reorganization Plan Modified.—In a third supplemental report, the Interstate Commerce Commission has approved certain adjustments in the plan for this road's reorganization approved by it last year, as outlined in *Railway Age* of December 18, 1943, page 987. The modifications apply to the incorporation of escape-clause limitations in the new mortgages; to the time at which the voting trust provisions become effective; to exclusion of certain charges against operating income on account of retirements from computations of revenues available for contingent interest and sinking funds; to the designation of voting trustees; and to provisions concerning dividends on the new series A preferred stock. In case of default of six quarterly dividends on this stock, its holders are given the right to elect two directors. As modified, the plan requires that the 5 per cent dividend on this stock must be paid or declared before any dividend can be declared or paid for the same period on the new common stock, but permits a dividend to be paid on the common without waiting 3 years after the consummation of the reorganization through a provision that

HSGI

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PARTS

ALWAYS ON THE JOB

IN War, as well as during peace time, railroads have depended upon HUNT-SPILLER *Air Furnace* GUN IRON to keep down locomotive operating costs and insure maximum availability of power.

This universal endorsement is due to the fact that HSGI wear-resisting parts always measure up to the requirements. Years of consistent performance have proven to the railroads the superior qualities of HUNT SPILLER *Air Furnace* GUN IRON.

Records on the majority of American railroads will show that HSGI parts are always on the job—guarding against high maintenance costs—preventing waste of power, fuel and out of service time due to frequent replacements.

HUNT SPILLER MFG. CORPORATION

V. W. Ellet, President

E. J. Fuller, Vice-Pres. & Gen. Mgr.

Office & Works

383 Dorchester Ave.

South Boston 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.

Export Agent for Latin America:

International Rwy. Supply Co., 30 Church Street, New York, N. Y.

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Cylinder Bushings
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Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
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Valve Rings, All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

HUNT-SPILLER

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Air Furnace

the preferred dividend shall be assumed to have been paid for the 3 years immediately preceding that time.

To the debtor company's petition to the commission to modify the plan by increasing the total capitalization of the new company and thereby permitting the old company's equity holders to participate in the reorganization, so reflecting the substantially improved earning power and cash position of the property, the commission pointed out that this showing was given weight in its revised plan, in which a distribution of some \$52 million in cash was provided for. "Accumulations of cash which may permit more favorable treatment of creditors under the plan do not necessarily justify any increase in capitalization, which the Supreme Court stated should be based primarily on earning power," its report explained, adding that the court, in reaching that opinion in the Milwaukee case, had had the old company's stockholders' contentions in that respect before it.

CHICAGO & NORTH WESTERN.—Reorganization.—In a supplementary report, Division 4 of the Interstate Commerce Commission has authorized this company, under an amended Wisconsin charter, to acquire the property of the company of the same name undergoing reorganization under section 77 of the Bankruptcy Act, and to issue securities in connection with, and otherwise to consummate, the plan of reorganization previously approved by the commission and the court.

CHICAGO, ROCK ISLAND & PACIFIC. — *Promissory Notes.*—This road has applied to the Interstate Commerce Commission for authority to issue promissory notes in evidence of the unpaid portion of the cost of certain equipment to be delivered in the latter months of 1944, totaling about \$7,950,000, of which it proposes to pay 25 per cent in cash upon acceptance. This equipment, ordered at various times, includes 10 steam freight locomotives from the American Locomotive Co., costing \$1,968,000; nine 5400-hp. Diesel-electric freight locomotives from the Electro-Motive Division of General Motors Corp., costing \$4,279,500; and 500 50-ton box cars from the Pressed Steel Car Co., to cost \$1,702,500.

COLORADO & SOUTHERN. — *Promissory Notes of Ft. W. & D. C.*—The Fort Worth & Denver City, controlled by this company through stock ownership, has applied to the Interstate Commerce Commission for authority to assume liability for a promissory note, not to exceed \$1,700,000 in amount, to further evidence indebtedness under a conditional sale agreement for the purchase at cost, estimated at about \$1,500,000, of 500 50-ton box cars to be built in the shops of the Chicago, Burlington & Quincy, which company in turn controls the Colorado & Southern.

EMORY RIVER. — *Issue of Securities.*—This road has applied to the Interstate Commerce Commission for authority to issue \$350,000 of common stock and \$100,000 of 4 per cent non-negotiable notes, all to be disposed of at par to obtain funds for the extension and rehabilitation of a line to

extend from Lancing, Tenn., to Mahan, 15 miles, which will serve certain coal properties, the owners of which will acquire the securities to be issued.

FLORIDA EAST COAST.—Annual Report.—The 1943 annual statement of this road shows a net income, after interest and other charges, of \$4,954,411, as compared with a net income of \$5,083,012 in 1942. Selected items from the income statement follow:

	1943	Increase or Decrease Compared with 1942
Average Mileage Operated	682	-3
RAILWAY OPERATING REVENUES	\$32,559,085	+\$11,720,999
Maintenance of way and structures	3,224,461	+1,140,157
Maintenance of equipment	3,067,582	+689,707
Transportation—Rail line	8,371,548	+2,766,177
TOTAL OPERATING EXPENSES	16,604,873	+5,123,665
Operating ratio	51.0	-4.1
NET REVENUE FROM OPERATIONS	15,954,213	+6,597,334
Railway tax accruals	4,493,558	+3,508,182
RAILWAY OPERATING INCOME	11,460,655	+3,089,152
Equipment rents—Net Dr.	1,203,346	+752,543
Joint facility rents—Net Dr.	83,829	+37,090
NET RAILWAY OPERATING INCOME	10,173,479	+2,299,519
Other income	166,472	+40,181
GROSS INCOME	10,339,950	+2,339,700
Interest on funded debt	2,826,269	-4,711
NET INCOME CARRIED TO SURPLUS	4,954,411	-128,602

GULF, MOBILE & OHIO.—Substitution of Equipment.—This road has applied to the Interstate Commerce Commission for authority to substitute under its 1941 equipment trust 123 gondolas, to be built by the American Car & Foundry Co. at a cost of \$356,700, in place of 116 box cars which could not be obtained because of wartime restrictions on equipment construction.

MISSOURI-ILLINOIS.—Receivership.—The Missouri-Illinois has petitioned the Federal District Court at St. Louis, Mo., to discharge it from bankruptcy. The revenues of the road have increased from \$850,167 in 1933 to \$3,240,260 in 1943, due in large part to increased shipments of oil, lime, coal and stone. In addition, the petition pointed out, the road has bought and retired \$1,510,000 of the \$2,737,500 in bonds that were outstanding when it went into bankruptcy in 1933. Since July, 1940, bond interest has been paid as it became due.

MISSOURI PACIFIC.—Move for "Independent" Directors.—F. Douglas Wilson and Andrew W. Comstock, owners of \$425,000 of various bonds and 4,100 shares of preferred stock of the Missouri Pacific, are soliciting proxies for the election, at the annual meeting on May 9, of directors selected by them. In their letter to shareholders, they asserted that the present board of directors had failed to protect the equity rights of stockholders, "the opportunity for which was afforded them by the remanding of the 1940 plan of reorgani-

zation to the Interstate Commerce Commission." On the contrary, they declared, the company as debtor "has joined the Alleghany Corporation in sponsoring a so-called 'compromise plan' which affords no genuine recognition to stockholders but does provide unique consideration for the 5½ per cent bonds in which Alleghany Corporation is interested."

NEW YORK, CHICAGO & ST. LOUIS.—Debt Cut Advised.—In a statement read at the annual meeting on May 3, management of the Nickel Plate expressed the opinion that a further reduction of debt should be made before dividends are resumed. "The Nickel Plate must meet its bank loan as well as \$2,300,000 of maturing equipment obligations besides making a substantial outlay of cash for necessary roadway projects as the work is done during the coming months. Additional locomotives and cars will need to be acquired to handle the increased volume of traffic." A new director, Rupert T. Zickl of New York, was among the three elected by holders of the preferred stock.

NEW YORK, NEW HAVEN & HARTFORD.—Promissory Notes.—Division 4 of the Interstate Commerce Commission has authorized this road to issue \$2,244,960 of promissory notes in further evidence of the unpaid portion of the purchase price of 26 Diesel-electric locomotives being acquired from the American Locomotive Co. under a conditional sale agreement, for which the Bankers Trust Co. will supply funds, above the proportion paid from the road's treasury, at a 1½ per cent annual interest rate.

PERE MARQUETTE.—New Director.—One new director, H. Dudley Swim, of New York, was elected to the board of the Pere Marquette at the annual meeting on May 2.

RUTLAND.—Reorganization Plan Set Aside.—The United States Circuit Court of Appeals, reversing a decision by the Federal District Court of Vermont, has ordered the district court to dismiss equity proceedings and grant a petition that the road be reorganized under section 77 of the bankruptcy laws. The Rutland has been in receivership under an equity proceeding instituted in May, 1938. In 1943 the district court approved a plan of reorganization in equity and in February, 1944, the Interstate Commerce Commission authorized the solicitation of bonds in accordance with the plan.

WESTERN MARYLAND.—Acquisition of Cumberland & Pennsylvania.—Division 4 of the Interstate Commerce Commission has authorized this company to acquire control of the Cumberland & Pennsylvania through purchase of the entire outstanding capital stock, consisting of 15,000 shares of \$100 par value, all of which has been held since 1864 by the Consolidation Coal Co. The transaction will be accomplished by the payment of \$375,000 in cash for the stock and the purchase for \$725,000, payable in five annual installments, with interest at 3 per cent, of the coal company's claim for that amount for sums advanced to the railroad subsidiary.

The acquisition is expected to result in

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economies of some \$150,000 annually through the elimination of duplicate services, more efficient use of personnel, and reduction of car-hire and overhead. Safer and more economical operation will be permitted by the construction of two short connecting tracks to eliminate certain heavy grades, and abandonment of a branch serving certain mines of the coal company is contemplated, the division's report points out.

SOUTHERN PACIFIC.—*Texas & New Orleans Bonds.*—The Texas & New Orleans, controlled by the Southern Pacific Co. through ownership of stock, has applied to the Interstate Commerce Commission for authority to issue to the parent company \$16,178,000 of its first and refunding bonds, series A, in exchange for other subsidiary company securities as follows: \$10,000,000 of Galveston-Victoria Division first mortgage 6 per cent bonds of the Galveston, Harrisburg & San Antonio; \$4,728,000 Eastern Division first mortgage 6 per cent bonds of the G. H. & S. A.; \$1,000,000 Eastern Division second mortgage 6 per cent bonds of the G. H. & S. A.; and \$450,000 Houston & Texas Central first mortgage 5 per cent bonds.

Average Prices Stocks and Bonds

	May 2	Last week	Last year
Average price of 20 representative railway stocks..	39.50	38.66	37.86
Average price of 20 representative railway bonds..	87.71	86.94	78.55

Dividends Declared

Nashua & Lowell.—\$2.50, semi-annually, payable May 1 to holders of record April 15.
Nashville, Chattanooga & St. Louis.—\$1.00, payable June 1 to holders of record May 10.
Norfolk & Western.—\$2.50, quarterly, payable June 10 to holders of record May 22.
Reading Company.—4% First Preferred, 50¢ quarterly, payable June 8 to holders of record May 18.

Abandonments

BOSTON & MAINE.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon a single-track line from Saco, Me., to Rigby, 9.72 miles, so that its operations between these points may be consolidated on an alternate double-track line. It was estimated that the abandonment would result in a saving of \$171,000 in federal income taxes, in addition to an annual reduction in expenses of about \$35,000. Jurisdiction as to the protection of employees who may be adversely affected was reserved for a 2-year period.

LEHIGH VALLEY.—Division 4 of the Interstate Commerce Commission has authorized this company and the Loyalsock Railroad, which it controls through stock ownership, to abandon operation of and to abandon, respectively, part of a branch line from a point near Bernice Junction, Pa., to Lopez, 3.44 miles.

PENNSYLVANIA.—Division 4 of the Interstate Commerce Commission has authorized this company and its subsidiary, the Western New York & Pennsylvania, to abandon operation of and to abandon, respectively, a line from Scottsville, N. Y., to Garbutt, 2.74 miles.

Railway Officers

EXECUTIVE

Charles W. Moore, advertising manager of the Great Northern, with headquarters at St. Paul, Minn., has been promoted to executive assistant with the same headquarters, succeeding H. M. Sims, whose resignation to become chairman of public relations of the Western Association of Railways, with headquarters in Chicago, was reported in the *Railway Age* of April 1.

James B. Davies, traffic manager of the Elgin, Joliet & Eastern, with headquarters at Chicago, has been elected vice-president, traffic, with the same headquarters, succeeding **John H. Mangold**, whose death on March 10 was reported in the *Railway Age* of March 25.

Mr. Davies was born in Louisville, Ky., and attended Bryant & Stratton Business College and the Chicago Athenaeum, also



James B. Davies

taking a correspondence course with the LaSalle Extension University, and attending the R. H. Merriam School of Interstate Commerce. He entered railway service on September 28, 1903, as a junior clerk on the E. J. & E., and was promoted through various clerical positions, becoming chief clerk on April 1, 1911. On July 1, 1923, he was promoted to assistant general freight agent, and on April 1, 1932, he was advanced to general freight agent, with headquarters at Chicago. On January 1, 1940, Mr. Davies was further advanced to assistant traffic manager, and in August, 1941, he was promoted to the position he held at the time of his new appointment.

Horace C. Grout, general manager of the Western lines of the Canadian Pacific, with headquarters at Winnipeg, Man., has been promoted to chief executive officer of the Minneapolis, St. Paul & Sault Ste. Marie (part of the Canadian Pacific), with headquarters at Minneapolis, Minn. Mr. Grout was born at Wausau, Wis., on March 14, 1881, and attended Northwestern Military Academy and the University of Wisconsin. He entered railway service in 1898 with the Canadian Pacific as a rodman in the con-

struction department, later being advanced to instrumentman and resident engineer. From 1904 to 1910 he served as resident engineer with the maintenance of way de-



Horace C. Grout

partment and assistant division engineer at Toronto, Ont. He served as assistant superintendent at Havelock, Ont., and Toronto, from April, 1910, until February, 1912. From the latter date until October, 1912, he served as superintendent successively at Toronto and Brownville Junction, Me., and in October, 1912, he became assistant general superintendent of the New Brunswick district at St. John, N. B., later becoming general superintendent of this district. He was appointed general superintendent of the Ontario district at Toronto, Ont., in April, 1920, and in September, 1934, he was promoted to assistant to the vice-president at Montreal, Que. On May 1, 1942, Mr. Grout was advanced to the position he held at the time of his new appointment.

FINANCIAL, LEGAL AND ACCOUNTING

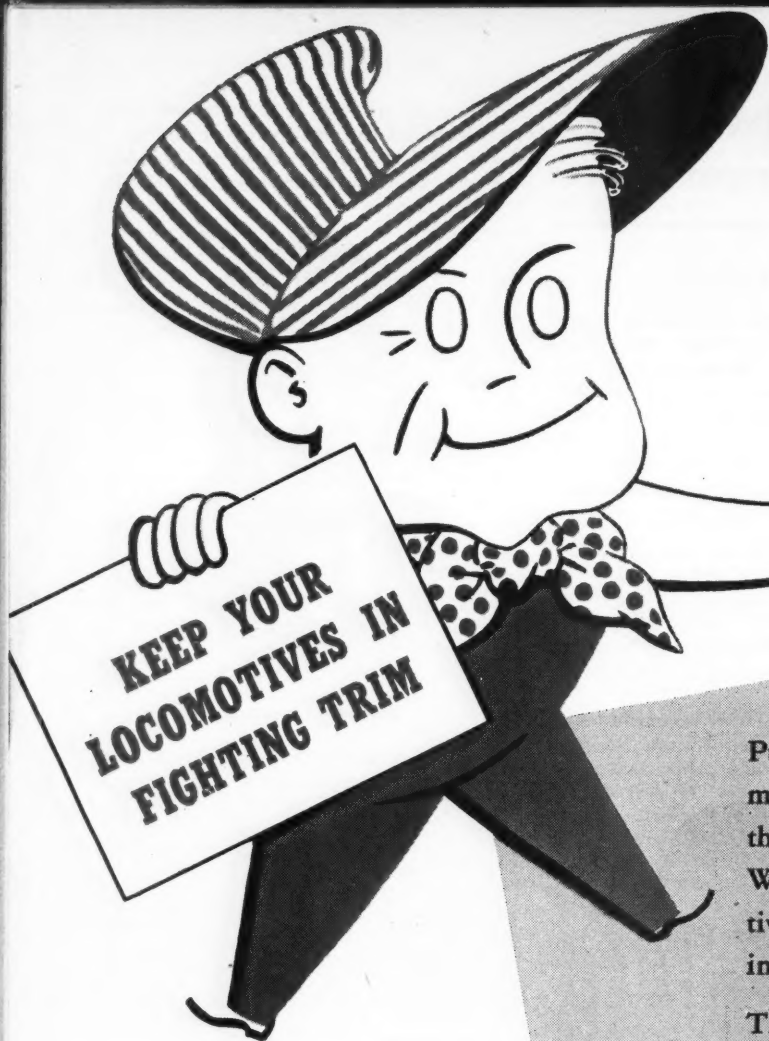
H. Merle Mulloy, assistant general attorney of the Reading, has been appointed



H. Merle Mulloy

general solicitor of that road with headquarters at Philadelphia, Pa. Mr. Mulloy was graduated from Swarthmore College in 1924 and from Harvard Law School in

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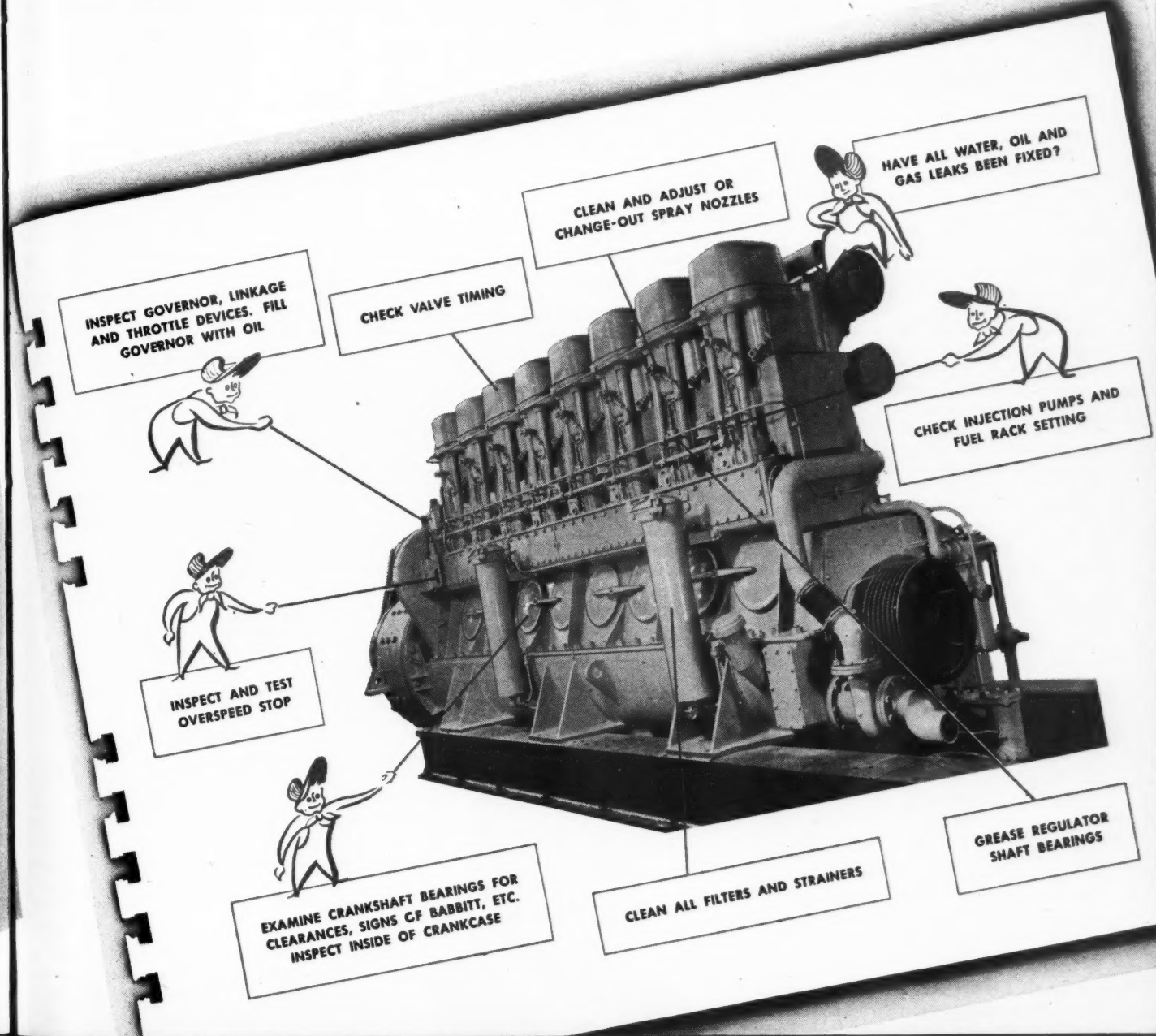
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1927. He entered the service of the Reading on September 1, 1927, as counsel, becoming assistant general solicitor six years later. He was appointed assistant general attorney on January 15, 1936, and continued in that capacity until his present appointment as general solicitor.

T. M. Fleming, chief clerk of the president and vice-president of the Elgin, Joliet & Eastern, with headquarters at Chicago, has been promoted to freight claim agent, with the same headquarters, succeeding **Ralph H. Nold**, whose death on April 13 was reported in the *Railway Age* of April 29.

Joseph F. Cress, whose promotion to comptroller of the Illinois Terminal, with headquarters at St. Louis, Mo., was reported in the *Railway Age* of April 29, was born at Cincinnati, Ohio, on March 3, 1888, and entered railway service on October 1, 1907, as a clerk of the traffic department of the Cincinnati, New Orleans & Texas Pacific (part of the Southern) at Cincinnati. From 1910 to 1912 he held various positions in the accounting departments of the Illinois Central, the Chicago, Rock Island & Pacific, and the Chicago & Eastern Illinois, all with headquarters at Chicago, and on May 1, 1913, he went with the Ann Arbor as chief accountant, with headquarters at Toledo, Ohio, later being promoted to assistant auditor, with the same headquarters. On April 1, 1921, Mr. Cress was promoted to auditor and treasurer, with the same headquarters, and on April 1, 1932, he went with the Illinois Terminal as general auditor, holding that position until his new appointment.

OPERATING

William Manson, general superintendent of the British Columbia district of the Canadian Pacific, with headquarters at Vancouver, B. C., has been advanced to general manager of the Western Lines, with headquarters at Winnipeg, Man., succeeding **Horace C. Grout**, whose promotion to chief executive officer of the Minneapolis, St. Paul & Sault Ste. Marie (controlled by the Canadian Pacific), is reported elsewhere in these columns. **J. I. MacKay**, division superintendent at Edmonton, Alta., has been promoted to general superintendent of the Manitoba district, with headquarters at Winnipeg, relieving **W. S. Hall**, who has been transferred to the Alberta district, with headquarters at Calgary, Alta., replacing **G. H. Baillie**, who has been transferred to Vancouver, replacing Mr. Manson.

Russell LeRoy Butler, whose appointment as terminal superintendent, North Florida division, of the Seaboard Air Line, was announced in the *Railway Age* of April 22, was born on August 31, 1897, at Suffolk, Va., and entered railway service with the Southern as assistant cashier on January 1, 1912. In March, 1913, Mr. Butler joined the Seaboard Air Line as claim investigator at Portsmouth, Va., becoming fruit inspector at Savannah, Ga., in October, 1921. He served successively as agent at South Baldwin, Fla., assistant agent at Miami, Fla., and agent at Fort Myers, Fla., becoming agent at Miami in April, 1934. The latter position he filled until his present promotion to terminal

superintendent of the North Florida division, with jurisdiction of the Miami terminal area and headquarters at Miami.

John L. Pickles, whose retirement as superintendent of the Duluth, Winnipeg & Pacific (part of the Canadian National), with headquarters at Virginia, Minn., was reported in the *Railway Age* of April 29, was born at Richwoods, Mo., on March 24, 1877, and received his education at the Colorado School of Mines. He entered railway service in May, 1896, as an axeman of the Mississippi River & Bonne Terre (now part of the Missouri Pacific), and from 1897 to 1902 he served in minor capacities with the St. Louis, Iron Mountain & Southern (now also a part of the Missouri Pacific). In July, 1902, he was appointed locating and resident engineer of the St. Louis, Memphis & South Eastern (now the St. Louis-San Francisco), and in 1903 he became engineer maintenance of way of the St. Louis, Kansas City & Colorado (now part of the Chicago, Rock Island & Pacific), with headquarters at St. Louis, Mo. From July, 1904, to July, 1905, Mr. Pickles served as division engineer maintenance of way of the Rock Island, with headquarters at various points of the road. In August of the latter year he served in a similar capacity with the El Paso & South Western (now part of the Southern Pacific), with headquarters at El Paso, Tex., and in 1909 he was appointed chief engineer of the Shannon-Arizona (now also a part of the S. P.), with headquarters at Clifton, Ariz. In February, 1912, he went with the Minnesota, Dakota & Western as superintendent, with headquarters at International Falls, Minn., and later in the same year he was appointed chief engineer of the D. W. & P., at Duluth, Minn. In June, 1933, Mr. Pickles was appointed to the position he held at the time of his retirement.

James H. Smith, whose appointment to the position of superintendent of the Cambria & Indiana, with headquarters at Colver, Pa., was announced in the *Railway*



James H. Smith

Age of April 8, was born at Mayport, Pa., on May 15, 1898. He entered railway service in September, 1916, with the Pennsylvania, and in April, 1919, joined the Cambria & Indiana as dispatcher. Mr. Smith was named trainmaster in November,

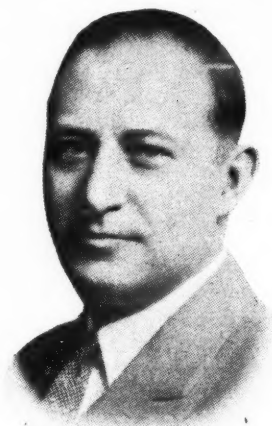
1939, and continued in that capacity until his present promotion to the post of superintendent at Colver, Pa.

TRAFFIC

Herbert G. Dring, European passenger agent of the Canadian Pacific at London, England, has retired owing to ill health. Mr. Dring is succeeded in this position by **A. L. Rawlinson**, formerly assistant European traffic manager, also at London.

H. P. Toxey has been appointed assistant general freight agent (commission cases) of the Seaboard Air Line, with headquarters at Norfolk, Va., succeeding **T. T. Masengill**, who has retired after forty years of service.

Donald R. Alexander, whose promotion to general freight and passenger agent of the Union Pacific, with headquarters at Kansas City, Mo., was reported in the *Railway Age* of April 22, was born at Topeka, Kan., on May 13, 1896, and entered railway service in September, 1916, in the freight department of the Union Pacific at Topeka. He subsequently held several clerical positions and in September, 1924,



Donald R. Alexander

he was appointed freight traffic representative, with headquarters as before at Topeka. In October, 1926, Mr. Alexander was advanced to freight traffic agent, with headquarters at Kansas City, and in August, 1941, he was promoted to general agent, with headquarters at Dallas, Tex., remaining in that location until his new appointment.

E. D. Hanes, whose appointment as coal traffic manager of the Virginian was announced in the *Railway Age* of April 1, was born at Martinsburg, Mo., on August 27, 1879. He was educated at the Kansas City, Mo., and the Chicago (Extension University) business colleges, and attended Kansas University Law School at Lawrence, Kan. Mr. Hanes entered railroad service in the auditing department of the Kansas City, Memphis & Birmingham (St. Louis-San Francisco) at the age of 17, later serving as ticket agent and train dispatcher of the Kansas City-Independent Rapid Transit railroad. He then became freight, ticket and station agent of the K. C. O. S. railway (Blair Line), and later went with the Kansas City, Nevada & Fort Smith (now Kansas City Southern)

as station agent, telegraph operator and train dispatcher at Kansas City. He served with the St. Joseph & Grand Island (Union Pacific) as ticket agent at Hastings, Neb., agent at Beattie and Hanover, Kan., and as joint general agent of that road and the Missouri Pacific at Seneca and Hiawatha, Kan. Mr. Hanes entered the service of the



E. D. Hanes

Virginian in 1912 as division claim agent at Princeton, W. Va., transferring to the operating department the following year as trainmaster of the New River division in charge of branches, at Elmore, Pemberton and Oak Hill, W. Va. He was appointed superintendent of coal terminals on August 28, 1917, serving on committee on the building of the Virginian's No. 2 coal pier. Mr. Hanes became superintendent of the New River division in 1927, continuing as superintendent coal terminals. In March, 1931, he was appointed supervisor of coal traffic. He was named general coal freight agent at Norfolk, Va., in 1941, and continued in that capacity until his recent promotion to coal traffic manager with the same headquarters.

E. F. Wales has been appointed district freight agent of the Baltimore & Ohio at Huntington, W. Va., succeeding Walter C. Austin, who has been named division freight agent at DuBois, Pa. Mr. Austin replaces J. B. Gray, who has been transferred to Charleston, W. Va., succeeding R. E. Barnhart, who has retired.

Paul E. Gingras, district passenger agent of the Canadian Pacific at Montreal, Que., has been appointed passenger traffic commissioner to succeed the late R. G. Amiot, who died on April 14. J. M. LeMay, chief clerk to the general agent at Montreal, has been named general agent at Quebec City, Que., to replace Frank Fortier, newly appointed district passenger agent at Montreal succeeding Mr. Gingras.

Charles E. Hattel, whose promotion to assistant to the general freight traffic manager of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, was reported in the *Railway Age* of April 29, was born at Goshen, Ind. He entered railway service on July 1, 1900, as a stenographer of the Santa Fe at Chicago, and in 1904 he was promoted to chief clerk of the division freight agent, with headquarters at Ft.

Madison, Iowa. He returned to Chicago in 1910 where he held several clerical positions until October 1, 1927, when he was advanced to assistant general freight agent. Mr. Hattel held that position until his new appointment, which became effective on March 1.

W. F. Adams, assistant to the general freight agent of the Chesapeake & Ohio, with headquarters at Richmond, Va., has been promoted to assistant general freight agent, divisions, with headquarters at Chicago, succeeding L. M. Johnson, who has retired after 46 years service. C. D. Jefferson, chief clerk of the general freight agent at Richmond, has been advanced to assistant to the general freight agent, with the same headquarters, replacing Mr. Adams.

Roscoe H. Deitiker, assistant general freight agent of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal., has been advanced to general freight agent of the Panhandle & Santa Fe (part of the Santa Fe system), with headquarters at Amarillo, Tex., succeeding Matthew A. Murphy, whose promotion to assistant traffic manager of the Santa Fe at Detroit, Mich., was reported in the *Railway Age* of April 22. G. C. Lyman, city freight agent, with headquarters at Cleveland, Ohio, has been promoted to division freight and passenger agent, with headquarters at El Paso, Tex., replacing Rodger M. Spahr, who has been advanced to assistant general freight agent at Los Angeles, relieving Mr. Deitiker.

ENGINEERING & SIGNALING

J. E. O'Donnell has been appointed assistant chief engineer of the Central Vermont, and J. C. Boyle has been named assistant engineer, with jurisdiction over all matters pertaining to track and track maintenance.

Joseph H. Wallis, whose appointment as communications engineer of the Baltimore & Ohio was announced in the *Rail-*



Joseph H. Wallis

way Age of April 29, was formerly research associate in the radiation laboratories of the Massachusetts Institute of Technology at Cambridge, Mass. He has been actively associated with electronic

engineering since 1933, when he became a radio engineer at Springfield, Mo. Mr. Wallis was engaged in communication equipment and engineering at Chicago before his work at M. I. T. As communications engineer, he will undertake studies and experiments for the application of radio communication in yard operations, between stations and trains, and between train crews, looking to the speeding-up of train operations, one of the post-war projects under consideration by the Baltimore & Ohio.

Spencer R. Sproles, whose promotion to assistant chief engineer of the Gulf, Mobile & Ohio, with headquarters at Mobile, Ala., was reported in the *Railway Age* of April 29, was born at Tchula, Miss., on July 25, 1897, and graduated from the Mississippi Agricultural and Mechanical College in 1919. He entered railway service on June 1, 1919, as a draftsman with the Gulf, Mobile & Northern (now part of the G. M. & O.). In May, 1921, he was advanced to assistant division engineer at New Albany, Miss., being appointed office engineer at Laurel, Miss., in July, 1923. A year later he was appointed assistant engineer with the same headquarters, and in April, 1925, he left the G. M. & N. to go with the Atlantic Coast Line as a resident engineer. After slightly more than a year in the latter capacity, Mr. Sproles returned to the G. M. & N. as engineer of construction. In April, 1928, Mr. Sproles was sent to Mobile, Ala., as construction engineer, being appointed track supervisor with the same headquarters in July, 1932. In April, 1937, he was promoted to principal assistant engineer, with headquarters at Mobile, the position he held at the time of his new appointment.

Harold R. Peterson, whose promotion to principal assistant engineer of the Northern Pacific, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of April 22, was born at Minneapolis, Minn., on September 5, 1896, and graduated in engineering from the University of Minnesota in 1918. He entered railway service on November 21, 1918, as a draftsman in the engineering department of the Northern Pacific at St. Paul. On February 7, 1920, he resigned to go with Foltz, King and Day, consulting engineers, but returned to the Northern Pacific ten weeks later as a structural draftsman in the bridge department. In 1925, he was appointed an inspector on bridge construction work, and in 1926 he was promoted to resident engineer on new line construction. Mr. Peterson was advanced to assistant engineer on grade separation work in 1928, and continued as an assistant engineer, assigned to field, construction and office work until 1936, when he was assigned to special duty with the Spokane, Portland & Seattle. He returned to the Northern Pacific in 1937, and in 1940 he was promoted to office engineer, the position he held at the time of his new appointment.

MECHANICAL

D. V. Gonder, superintendent of motive power and car shops, Canadian National, at Montreal, Que., has been appointed general superintendent of motive power and

car equipment of the Atlantic region, with headquarters at Moncton, N. B. **J. W. Bailey** has been named superintendent of motive power and car equipment, Southern Ontario district, with headquarters at



D. V. Gonder

Toronto, Ont., succeeding **A. C. Melanson**, who has been appointed works manager of the motive power and car shops at Montreal. Mr. Bailey is succeeded by **D. E. MacKinnon** as superintendent of motive power shop at Stratford, Ont. Mr. Gonder, who was born at Pingyao, China, came to Canada as a youth, and entered the service of the Canadian National in November, 1925, when he became an apprentice in the shops at Stratford. Completing his training in June, 1930, he was transferred to Toronto in September of the same year as draftsman. The following year he was promoted to the position of mechanical inspector, and in September, 1937, became assistant engineer in the mechanical department, shortly afterwards returning to Stratford as erecting shop foreman. Mr.



A. C. Melanson

Gonder then served successively as round-house foreman at Stratford, Mimico, Ont., and Montreal until October, 1942, when he was appointed superintendent of the shops at Montreal. This position he held until his present appointment as general super-

intendent of motive power and car equipment of the Atlantic region, at Moncton.

Mr. Melanson, who was born at Scoudouc, N. B., entered railway service as a machinist apprentice of the Canadian Government Railways at Moncton. Three years later he became a draftsman, and in May, 1919, was transferred to Toronto. In January, 1922, he progressed to material inspector, later serving at Montreal and Stratford until June, 1924, when he was promoted to superintendent of the St. Malo, Que., motive power and car shops. Mr. Melanson was named superintendent of motive power and car equipment of the Quebec district in February, 1939, and assumed a similar position in July, 1943, at Toronto. He held that post until his present appointment as works manager of the Montreal motive power and car shops.

John W. Phillips, master mechanic of the Milwaukee division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., has retired.

H. W. Jarrett has been appointed master mechanic of the South Carolina division, Seaboard Air Line, succeeding **F. W. Knott**, who has been assigned to other duties.

L. H. Bexon, superintendent of National Railways Munitions, Ltd. (a gun carriage plant operated by the Canadian National), with headquarters at Montreal, Que., has been appointed superintendent of the Canadian National motive power shops at Transcona, Man.

SPECIAL

F. B. Wildrick, supervisor of materials and records of the Erie, with headquarters at Cleveland, Ohio, has been promoted to superintendent of employment, with headquarters at New York, succeeding to the duties of **A. M. Bimson**, supervisor of employment and personal records, who has resigned. The position of supervisor of employment and personal records has been abolished.

R. E. Vreeland, who was appointed supervisor of safety of the Central of New Jersey on April 1, has been promoted to superintendent of safety with headquarters at Jersey City, N. J. **J. C. Unangst**, fire marshal, has been named safety inspector, and his former position has been discontinued. **S. S. Sandford**, who has been advanced to safety supervisor from safety inspector, also has jurisdiction over all matters pertaining to handling of explosives, inflammables, acids and similar items. **J. F. Allen**, formerly a machinist, will assist Mr. Sanford, and **John A. Mohan** has been appointed safety supervisor for the road's Pennsylvania operations.

OBITUARY

George S. Eagleton, freight claim agent of the Union Pacific, with headquarters at Portland, Ore., whose death on April 13 was reported in the *Railway Age* of April 22, was born at Hillsboro, Ore., on January 7, 1884, and entered railway service in 1902 with the Southern Pacific

at Portland. He held several minor positions with that road until May, 1907, when he went with the Union Pacific as a clerk of the freight claim department, with headquarters at Portland. Later he served as an investigator of that department and still later as recheck clerk of the auditor of disbursements. In June, 1910, Mr. Eagleton was promoted to chief clerk of the freight claim department at Portland, and on January 1, 1940, he was advanced to the position he held at the time of his death.

Ira Lawrence Pyle, chief engineer of the Chesapeake & Ohio, died on May 1 at his home in Richmond, Va., at the age of 67. Mr. Pyle, who was born at Philadelphia, Pa., on March 27, 1877, entered railroad service in June, 1902, as a levelman on location survey of the Chesapeake & Ohio. He then served successively as transitman and resident engineer, and from May, 1907, to April, 1909, was on furlough as chief of party on land survey for the Rowland Company. Mr. Pyle returned to



Ira Lawrence Pyle

the Chesapeake & Ohio in April, 1909, as draftsman, becoming resident engineer in August of that year. In April, 1918, he was named assistant engineer, three years later being appointed assistant engineer on construction. From January until March, 1923, he served as assistant to chief engineer, and was advanced to assistant chief engineer in March. In September, 1939, Mr. Pyle was promoted to the position of chief engineer at Richmond, Va., a capacity in which he continued until his recent death.

Julian O. Gaither, who retired in 1939 as general agent of the Gulf, Mobile & Ohio, with headquarters at New Orleans, La., died in that city recently.

Stanton Curtis, who retired in 1941 as general passenger agent of the Gulf, Mobile & Ohio, with headquarters at Mobile, Ala., died at St. Louis, Mo., on April 21, following a heart attack.

LIGHT TUNNEL.—The London & North Eastern now has a floodlit tunnel for inspecting locomotives during blackout, reports British Information Services. The 80-ft. tunnel has fluorescent lighting, a master switch shutting off all light as soon as doors at the end of the tunnel are opened.